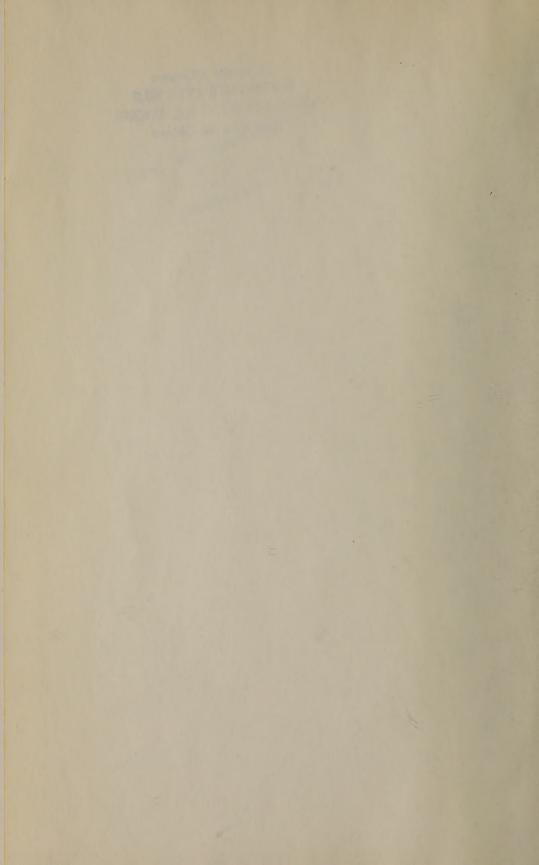
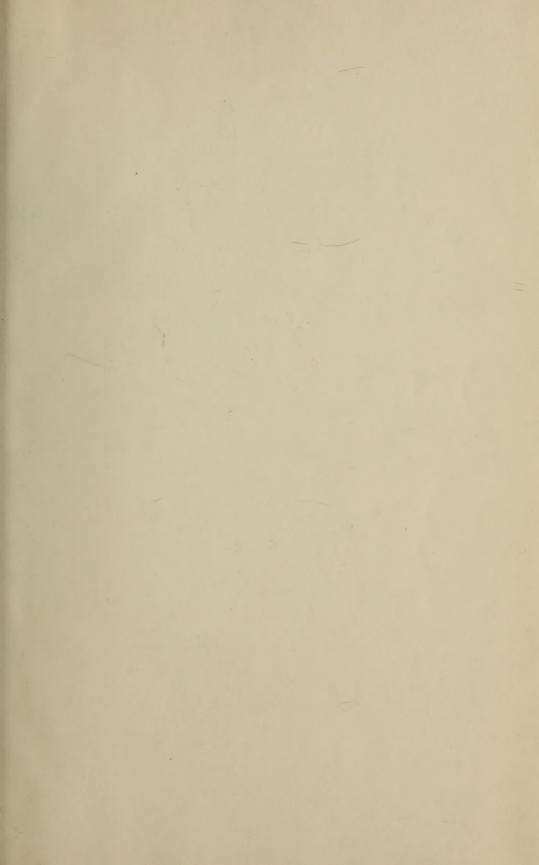
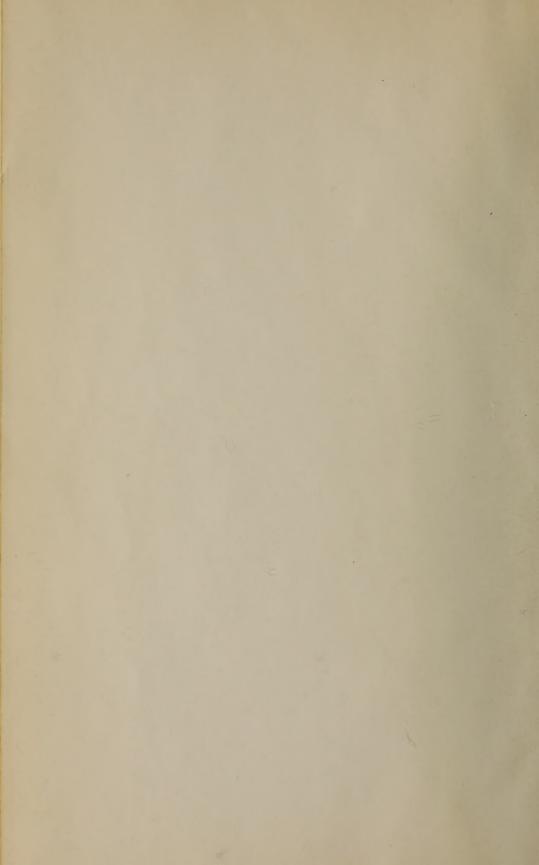


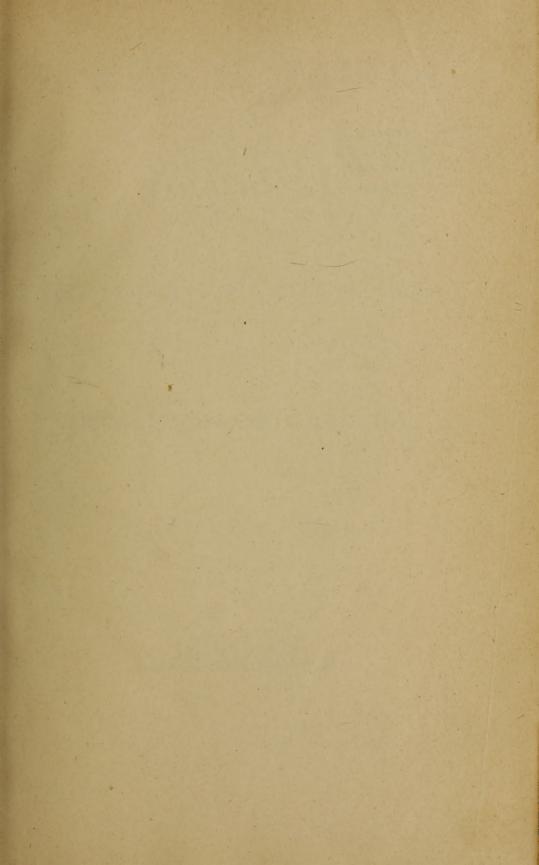


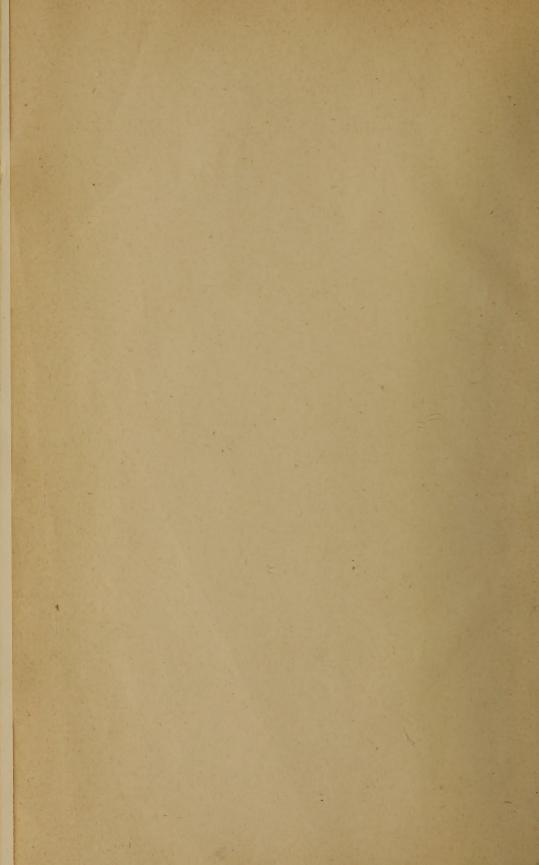
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FOURTH SESSION OF THE SIXTH PARLIAMENT

OF THE



DOMINION OF CANADA.

SESSION 1890.



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DANSON STORES

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1890.

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- 1. Report, Returns and Statistics of the Inland Revenues of the Dominion of Canada, for the fiscal year ended 30th June, 1889. Presented to the House of Commons, 17th January, 1890, by Hon. J.
- 1a. Inspection of Weights, Measures and Gas, being a Supplement to the Report of the Department of
- 1b. Report on Adulteration of Food, being a Supplement to the Report of the Department of Inland

CONTENTS OF VOLUME No. 2.

Tables of the Trade and Navigation of the Dominion of Canada, for the fiscal year ended 30th June, 1889. Presented to the House of Commons, 17th January, 1890, by Hon. M. Bowell-

Printed for both Distribution and Sessional Papers.

CONTENTS OF VOLUME No. 3.

Public Accounts of Canada, for the fiscal year ended 30th June, 1882; presented to the House of Commons, 17th January, 1890, by Hon. G. E. Foster. Estimates for the fiscal year ending 30th June, 1891; presented 30th January, 1890. Supplementary Estimates of Canada, for the fiscal year ending 30th June, 1890; presented 27th March, 1890. Further Supplementary Estimates for the fiscal year ending 30th June, 1890; presented 25th April, 1890. Supplementary Estimates for the year ending 30th June, 1891; presented 6th May, 1890-

Printed for both Distribution and Sessional Papers.

4. List of Shareholders in the Chartered Banks of the Dominion of Canada, as on the 31st December, 1889. Presented to the House of Commons, 9th April, 1890, by Hon. G. E. Foster -

Printed for both Distribution and Sessional Papers.

CONTENTS OF VOLUME No. 4.

Report of the Auditor General on Appropriation Accounts, for the year ended 30th June, 1889. Presented to the House of Commons, 27th January, 1890, by the Hon. G. E. Foster—

Printed for both Distribution and Sessional Papers.

CONTENTS OF VOLUME No. 5.

- 6. Report of the Minister of Agriculture for the Dominion of Canada, for the calendar year, 1889. Presented to the House of Commons, 20th March, 1890, by Hon. J. Carling-
 - Printed for both Distribution and Sessional Papers.
- 6*. Canadian Immigration and Emigration. Annex to the Report of the Minister of Agriculture—
 - Printed for both Distribution and Sessional Papers.

CONTENTS OF VOLUME No. 6.

- 6b. Report on Canadian Archives, 1890. Presented to the House of Commons, 10th February, 1890, by
- 6c. Reports of the Director and Officers of the Experimental Farms, for the year 1889. Presented to the House of Commons, 9th April, 1890, by Hon. J. Carling-

Printed for both Distribution and Sessional Papers.

6d, Report of the High Commissioner for Canada, with Reports from Agents in the United Kingdom, for the year 1889. Presented to the House of Commons, 9th April, 1890, by Hon, J. Carling-Printed for both Distribution and Sessional Papers.

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7. Report of the Secretary of State of Canada, for the year ended 31st December, 1889. Presented to the House of Commons, 29th January, 1890, by Hon. J. A. Chapleau-

Printed for both Distribution and Sessional Papers.

- 7a, The Civil Service List of Canada, 1889. Presented to the House of Commons, 3rd February, 1890, by Hon, J. A. Chapleau...... Printed for both Distribution and Sessional Papers.
- 7b. Report of the Board of Examiners for the Civil Service of Canada, for the year ended 31st December, 1889. Presented to the House of Commons, 30th January, 1890, by Hon. J. A. Chapleau-

Printed for both Distribution and Sessional Papers.

- 7c. Report of the Department of Public Printing and Stationery for the Dominion of Canada, for the
- 8. Report of the Joint Librarians of Parliament on the state of the Library of Parliament. Presented to the House of Commons, 16th January, 1890, by Hon. Mr. Speaker-

Printed for Sessional Papers only.

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9. Report of the Superintendent of Insurance, for the year ended 31st December, 1889—

Printed for both Distribution and Sessional Papers.

- 9a. Preliminary Abstract of the business of Canadian Life Insurance Companies, for the year ended 31st December, 1889. Presented to the House of Commons, 7th February, 1890, by Hon. G. E. Foster. Printed for both Distribution and Sessional Papers.
- 9b. Abstract of Statements of Insurance Companies in Canada for the year ending 31st December, 1889. Presented to the House of Commons, 9th April, 1890, by Hon. G. E. Foster-

Printed for both Distribution and Sessional Papers.

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10. Report of the Minister of Justice as to Penitentiaries in Canada, for the year ended 30th June, 1889. Presented to the House of Commons, 28th March, 1890, by Sir John Thompson-

Printed for both Distribution and Sessional Papers.

11. Annual Report of the Department of Militia and Defence of the Dominion of Canada, for the year ended 31st December, 1889. Presented to the House of Commons, 6th February, 1890, by Sir

CONTENTS OF VOLUME No. 10.

12. Annual Report of the Department of Indian Affairs, for the year ended 31st December, 1889. Presented to the House of Commons, 22nd January, 1890, by Hon. E. Dewdney-Printed for both Distribution and Sessional Papers.

13. Report of the Commissioner of the North-West Mounted Police Force, 1889. Presented to the House of Commons, 17th March, 1890, by Sir John Macdonald-

Printed for both Distribution and Sessional Papers.

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Annual Report of the Department of the Interior, for the year 1889. Presented to the House of Commons, 31st March, 1890, by Hon. E. Dewdney-

Printed for both Distribution and Sessional Papers.

15. Report of the Postmaster General, for the year ended 30th June, 1889. Presented to the House of Commons, 23rd January, 1890, by Hon. J. Haggart-

Printed for both Distribution and Sessional Papers.

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The two following documents were not printed until the Index was issued, which accounts for their mission:

6e. Abstracts of the Returns of Mortuary Statistics for the year 1889. (Printed for both Distribution and Sessional Papers.)

[The above paper has been inserted as the first of Volume No. 7, immediately preceding the Report of the Secretary of State.]

19b. Canal Statistics for Season of Navigation, 1889. (Printed for both Distribution and Sessional Papers.)

[Inserted as last paper in Volume No. 13, immediately following Railway Statistics.]



CONTENTS OF VOLUME No. 12.

Twenty-second Annual Report of the Department of Marine, for the fiscal year ended 30th June, 1889. Presented to the House of Commons, 24th February, 1890, by Hon. Mr. Colby-

Printed for both Distribution and Sessional Papers.

- 16a. Report of the Chairman of the Board of Steamboat Inspection, for calendar year ended 31st Decem-
- Annual Report of the Department of Fisheries, for the year 1889. Presented to the House of Commons, 16th April, 1890, by Hon. Mr. Colby....Printed for both Distribution and Sessional Papers.
- 17a. Special Report of the delegates appointed in 1889, to enquire into the Herring Fishing Industry of Great Britain and Holland. Presented to the House of Commons, 10th February, 1890, by Hon.
- 17b. Report on the Fisheries Protection Service of Canada, 1889. Presented to the House of Commons,

CONTENTS OF VOLUME No. 13.

- Annual Report of the Minister of Public Works, for the fiscal year 1888-89, on the works under his control. Presented to the House of Commons, 3rd February, 1890, by Sir Hector Langevin-
 - Printed for both Distribution and Sessional Papers.
- Annual Report of the Minister of Railways and Canals for the past fiscal year, from the 1st July, 1888, to 30th June, 1889, on the works under his control. Presented to the House of Commons, 3rd March, 1890, by Sir John A. Macdonald... Printed for both Distribution and Sessional Papers.
- 19a. Railway Statistics of Canada, and Capital, Traffic and Working Expenditure of the Railways of the Dominion, 1889. Presented to the House of Commons, 9th May, 1890, by Sir John A. Macdonald— Printed for both Distribution and Sessional Papers.

CONTENTS OF VOLUME No. 14.

- Report of the Social Economy Section of the Universal International Exhibition of 1889 at Paris, prepared by Jules Helbronner, member of the Royal Labor Commission. Presented to the House of Commons, 8th May, 1890, by Hon. M. Bowell . Printed for both Distribution and Sessional Papers.
- Return to an order of the House of Commons, dated 20th March, 1889, for copies of all correspondence respecting the establishment of a bi-weekly, in place of a weekly, postal service between Lourdes and Somerset, in the county of Megantic. Presented to the House of Commons, 20th
- 21a. Return to an order of the House of Commons, dated 25th February, 1889, for copies of all correspondence respecting the awarding of the contract for carrying the mail between Becancour Station and Ste. Julie de Somerset, and between Inverness and Ste. Julie de Somerset, awarded in or about the month of April, 1888; also of all tenders connected therewith. Presented to the House of Com-
- 21b. Return to an order of the House of Commons, dated 2nd March, 1888, for a return of all correspondence by letter or telegram, and all other papers, relative to the conveyance of extra provincial mails in Prince Edward Island since the 1st of September last. Presented to the House of Com-
- 21c. Return to an order of the House of Commons, dated 23rd January, 1890, for a return showing the number of registered letters sent to the Dead Letter Office during the years 1887, 1888 and 1889, up to the 31st December last. Presented to the House of Commons, 29th January, 1890.—Mr.
- 21d. Return to an order of the House of Commons, dated 3rd February, 1890, for copies of all letters, reports and other correspondence now in the possession of the Postmaster General respecting the carriage of the mails between Campbellton, in the province of New Brunswick, and Gaspé Basin, in the province of Quebec. Presented to the House of Commons, 7th February, 1890.—Mr.
- Statement of Governor General's Warrants issued and expenditure made under same since last session of Parliament, in accordance with Consolidated Revenue and Audit Act, section 32, sub-section 2. Presented to the House of Commons, 20th January, 1890, by Hon. G. E. Foster-

Printed for Distribution only.

Report of the Commissioner, Dominion Police, for the year 1889, under Revised Statutes of Canada chapter 184, section 5. Presented to the House of Commons, 21st January, 1890, by Sir John

- Statement of expenditure on account of Miscellaneous Expenses from 12th July, 1889, to 4th January, 1890, authorized by Act 52 Victoria, chapter 1. Presented to the House of Commons, 22nd
- Return to an order of the House of Commons, dated 8th February, 1889, for a return of the number of lobster factories round the coast of Prince Edward Island, the number of fines imposed during the season of 1888, the amount of each fine, the names of parties who have paid the fines, and the names of parties who have not paid the same; also the nature of offence in each case. Presented
- Copies of the regulations affecting Dominion Lands which have been sanctioned by the Privy Council since the close of last session of Parliament, in compliance with section 91 of the Dominion Lands Act, chapter 54 of the Revised Statutes of Canada. Presented to the House of Commons, 28th
- Regulations for the control and management of the Rocky Mountains Park of Canada, sanctioned by Order in Council of the 27th November, 1889. Presented to the House of Commons, 28th

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- Statement of all superannuations and retiring allowances in the Civil Service, giving the name and rank of each person superannuated or retired, his salary, age and length of service, his allowance and cause of retirement, whether vacancy has been filled by promotion or new appointment, etc., for year ended 31st December, 1889. Presented to the House of Commons, 29th January, 1890,
- 28a. Return to an address of the House of Commons, to His Excellency the Governor General, dated the 22nd January, 1890, for copies of all Orders in Council, correspondence and documents respecting the superannuation of certain employees in the Cullers' Office at Quebec. Presented to the House
- 28b. Return to an address of the House of Commons, to His Excellency the Governor General, dated 22nd January, 1890, for copies of all Orders in Council, correspondence and documents respecting the superannuation of certain employés in the Post Office at Quebec, and in the Post Office Inspector's Office at Quebec; and the filling up of the vacancies caused by their superannuation. Presented to the House of Commons, 5th March, 1890.—Mr. Langelier (Quebec Centre)......Not printed.
- Return to an order of the House of Commons, dated 23rd January, 1890, for a return giving a detailed statement of receipts and expenditures to 1st January, 1890, together with statement of the same for the half year ending 1st January, 1889. Presented to the House of Commons, 29th January,
- Return to an order of the House of Commons, dated 20th January, 1890, for a return showing the amounts of money deposited in the several savings banks in the Dominion, and in the several post office savings banks, the location of each, and the gross amount of deposits in each on the 30th of June and December last. Presented to the House of Commons, 29th January, 1890.—Mr. Mc-Mullen......Not printed.
- 30a. Supplementary return to an order of the House of Commons, dated 20th January, 1890, for a return showing the amounts of money deposited in the several savings banks in the Dominion, and in the several post office savings banks, the location of each, and the gross amounts of deposits in each on the 30th of June and December last. Presented to the House of Commons, 18th February, 1890.—
- 30b. Return to an order of the House of Commons, dated 5th February, 1890, for copies of the original charters of the Bank of British North America and of the Bank of British Columbia, and of all amendments thereto. Presented to the House of Commons, 21st February, 1890.—Mr. Edgar— Not printed.
- 30c. Return to an order of the House of Commons, dated 23rd January, 1890, for a return giving the names of all the chartered banks in Canada that have suspended payment, gone into liquidation, or become insolvent since Confederation, showing the amount of capital stock authorized, the amount of stock subscribed, the amount of stock paid up, the assets and liabilities of said banks at the time of such suspension or failure, the nature of such assets and liabilities, the dates of said charters and the dates of forfeiture or relinquishment of such charters, and dividend paid to bill holders and depositors. Presented to the House of Commons, 2nd April, 1890.—Mr. Hesson............ Not printed,
- Correspondence with the Canadian Pacific Railway Company covering a copy of list of all lands sold by that company during the year ending 1st day of October last, in compliance with section 8 of 49 Victoria, chapter 9. Presented to the House of Commons, 30th January, 1890, by Hon. E. Dewd-

- 32. Detailed statement of all bonds or securities registered in the Department of the Secretary of State of Canada, submitted to the Parliament of Canada under section 23, chapter 19, of the Revised Statutes of Canada. Presented to the House of Commons, 3rd February, 1890, by Hon. J. A. Chapleau. Not printed.
- 33. Return to an address of the House of Commons, to His Excellency the Governor General, dated 27th January, 1890, for copies of all resolutions of the Legislative Assembly of the North-West Territories, respecting the application of moneys voted by this House for the use of the said territories.

 Presented to the House of Commons, 10th February, 1890.—Hon. Mr. Laurier......Not printed.
- 33a. Return to an address of the House of Commons, to His Excellency the Governor General, dated 3rd February, 1890, for copies of all memorials, petitions and resolutions of the Legislative Assembly of the North-West Territories passed at its last session, whether addressed to His Excellency the Governor General or to the Parliament of Canada. Presented to the House of Commons, 10th February, 1890.—Mr. Daly.
 Not printed.

- 33h. Correspondence in relation to certain assistance afforded to the Half-breeds at Fort la Corne and other places. Presented to the House of Commons, 1st May, 1890, by Hon. E. Dewdney—
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- 33i. Statement respecting the purchase of seed grain (including a schedule of prices paid for wheat and oats). Presented to the House of Commons, 1st May, 1890, by Hon. E. Dewdney....Not printed.
- 33j. Statement respecting distribution of seed-grain and instructions as to the distribution thereof. Presented to the House of Commons, 1st May, 1890, by Hon. E. Dewdney...................Not printed.

- 33n. Return to an order of the House of Commons, dated 21st April, 1890, for a return showing: 1. The number of acres of pasture land now under lease in the North-West Territories. 2. The amount paid the Government for rental of grazing leases during the past year. 3. The amount due the Government for arrears on pasture leases, and the names of the lessees in arrears for pasture lease rental. 4. The names of the lessees holding leases of territory upon which settlers are not allowed to take up land without the consent of the lease-holder, with the total area of such leases, and the location of each. Presented to the House of Commons, 9th May, 1890.—Mr. Charlton—

Not printed.

- 34. See Sessional Paper No. 17a.
- 35. Certified copy of a report of the Honorable the Privy Council, approved by His Excellency in Council on the 17th August, 1889, on the subject of the Copyright Act of last session, together with correspondence and other papers referring to the same subject. Presented to the House of Commons, 10th February, 1890, by Sir John Thompson... Printed for both Distribution and Sessional Papers.

- 39. Return to an order of the House of Commons, dated 23rd January, 1890, for a statement of all the expenses generally incurred to this day for the making of the electoral lists for the Dominion of Canada. Presented to the House of Commons, 25th February, 1890.—Mr. Casgrain—

Not printed.

- 41f. Return to an order of the House of Commons, dated 10th March, 1890, for a return showing (a) the names and number of officials' cars on the Intercolonial Railway and its branches; (b) the original cost, date and place of building of each car, or name of person or company from whom purchased; (e) the cost of repairs to, or expenditure in, each of such cars since acquired; (d) the names, salaries and expenses of each employee on such official cars; (e) the annual expenses of providing the supplies to each such car. Presented to the House of Commons, 9th May, 1890.—Mr. Davies—

Not printed.

- 41g. Return to an address of the Senate to His Excellency the Governor General, dated 1st May, 1890, for a return showing: 1. The rate per ton charged for carrying coal in car loads over the Intercolonial Railway from the mines of Nova Scotia to St. John, Moncton, Newcastle and Campbellton in New Brunswick, and to Rimouski, Rivière du Loup and Quebec, and by the same, with its connections, to Montreal and Toronto. 2. The rate per ton for carrying flour, wheat and other goods of the same class in car loads from Toronto, Montreal and Quebec to Campbellton, Newcastle, Moncton and St. John in New Brunswick, and to Amherst, Truro, Pictou and Halifax in Nova Scotia. 3. The number of freight trains which passed each way between Nova Scotia and Quebec and Ontario, and between New Brunswick and the same provinces, in the year 1889.

 4. How many trains carried goods from the west to be shipped at Halifax and St. John, respectively, during 1889, and up to the present date in 1890. Presented to the Senate, 16th May, 1890.—Hon. Mr. Wark.
- 42. Return to an order of the House of Commons, dated 23rd January, 1890, for a return showing the amount of money expended by the Dominion in each province since Confederation to the 30th of June, 1889, under the following heads: 1. Subsidies to railways in each province, excepting the Canada Pacific main line and Sault Branch. 2. The several railways built by the Dominion in each Province, including the Intercolonial branches and extensions, but not the main line as originally constructed. 3. The buildings erected or purchased in each province, their location and cost. Presented to the House of Commons, 26th February, 1890.—Mr. McMullen—

Printed for both Distribution and Sessional Papers.

42a. Amended return (in part) to a return presented to the House of Commons on the 26th February, 1890, showing the amount of money expended by the Dominion in each province since Confederation to the 30th June; 1889, under the following heads: 1. Subsidies to railways in each province excepting the Canada Pacific main line and Sault Branch. 2. The several railways built by the Dominion in each province, including the Intercolonial branches and extensions, but not the main

line as originally constructed. 3. The buildings erected or purchased in each province, their location and cost. Presented to the House of Commons, 22nd April, 1890.—Mr. McMullen

Printed for both Distribution and Sessional Papers.

- 42d. Papers, correspondence, etc., respecting subsidies to certain railway companies, and towards the construction of certain railways, as follows: Montreal and Ottawa Railway Company (late Vaudreuil and Prescott Railway Company); Waterloo Junction Railway Company; Northern Pacific Junction Railway Company; Ottawa, Morrisburg and New York Railway Company; Erie and Huron Railway Company; Brockville, Westport and Sault Ste. Marie Railway Company; Manitoulin and North Shore Railway Company; Port Arthur, Duluth and Western Railway Company; Lake Erie and Detroit River Railway (formerly Amherstburg, Lake Shore and Blenheim Railway Company); Lindsay, Bobcaygeon and Pontypool Railway Company; Kingston, Smith's Falls and Ottawa Railway Company; Ottawa and Parry Sound Railway Company; Bay of Quinté and Lake Nipissing Railway Company; Cobourg, Northumberland and Pacific Railway Company; St. Stephen and Milltown Railway Company; Woodstock and Centreville Railway Company; St. John River Railway Company, N.B.; Central Railway Company, N.B.; Shelburne and Liverpool to Annapolis Railway Company; Inverness and Richmond Railway Company; International Railway Company; Montreal and Sorel Railway Company; Pontiac Pacific Junction Railway Company; Montreal and Lake Maskinongé Railway Company; Great Eastern Railway Company; Drummond County Railway Company; Oxford Mountain Railway Company; Maskinongé and Nipissing Railway Company; Jacques Cartier Union Railway Company; Quebec Central Railway Company; Quebec and Lake St. John Railway Company; Stewiacke Valley and Lansdowne Railway Company; Temiscouata Railway Company; Tobique Valley Railway Company. Presented to the House of Commons, 14th May, 1890, by Sir John A.
- 43. Return to an order of the House of Commons, dated 12th February, 1890, for a list of Indian reserves within the Province of Manitoba, giving location and area of each one, number of Indians belonging to it at the time of location of such reserve, and number now actually living on same. Presented to the House of Commons, 26th February, 1890.—Mr. LaRivière—

Printed for both Distribution and Sessional Papers.

- 43b. Return to an order of the House of Commons, dated 10th March, 1890, for a statement showing: 1.

 All moneys in the hands of the Superintendent General of Indian Affairs, belonging to the Indians of the Caughnawaga Reserve. 2. All the several sources from which the said moneys were derived. Presented to the House of Commons, 26th March, 1890.—Mr. Doyon.....Not printed.

- 44. Statement of the affairs of the British Canadian Loan and Investment Company, on 31st December, 1889. Presented to the House of Commons, 16th May, 1890, by Hon. Mr. Speaker...Not printed.
- Return to an address of the House of Commons to His Excellency the Governor General, dated 1st April, 1889, for a return: 1. Giving the names and places of residence of the commissioners appointed in 1883 for the purpose of examining and reporting upon the fitness and eligibility of persons appearing before them for examination and qualification as inspectors of the hulls of freight and passenger steamers plying in Canadian waters. 2. Copies of the circular sent out inviting competitors to meet at Ottawa, and the date or dates so mentioned from time to time. 3. The names and places of residence of all persons who were so examined at each and every meeting of the said commissioners up to date. 4. Copies of the recommendation or recommendations of any of the said commissioners, or any one of them, respecting the said examination or the qualifications, or otherwise, of any or all who underwent such examination at the first or any subsequent meeting of the said commissioners, or either of them. 5. The name and place of residence of each and every inspector of freight and passenger steamer hulls appointed by the Government from 1882 to date; indicating who were appointed after undergoing and passing the necessary examination, as well as giving the name and place of residence of each and every inspector of such hulls who was appointed without having successfully passed the said examination, together with the name and place of residence of any inspector so appointed, since 1882 to date, who had been dismissed or had resigned within the time specified, and the cause assigned for such dismissal or resignation. 6. The name and place of residence of any person appointed to fill any vacancy or addition as inspector of said hulls. 7. Copies of all correspondence between the Minister of Marine and any person respecting any of the questions enumerated herein. Presented to the House of Commons,

- 46b. Return to an order of the House of Commons, dated 3rd March, 1890, for a statement showing, for each year since 1878:
 1. The number of vessels which have passed through the Chambly Canal, and their tonnage.
 2. The amount of, and the description of freight carried by these vessels.
 3. The amount of tolls collected in the said several years on the said canal. Presented to the House of Commons, 17th March, 1890.—Mr. Préfontaine.

- 48. Return to an order of the House of Commons, dated 23rd January, 1890, for a statement in detail showing the expenditure made in connection with the Marine and Emigrant Hospital at Quebec, since the 30th June, 1886, the said statement giving: 1. The sum voted each year by the Dominion Parliament. 2. The amount expended. 3. The number of sailors and emigrants taken in each year, and the total number of days that each one of these passed in the hospital. 4. The number of persons not being sailors or emigrants, taken into the said hospital, and the number of days that each one of this class passed there. 5. The total cost day by day of each patient. 6. The amount received by the Government for the patients who are neither emigrants nor sailors. 7. The amount

received from the Sick Mariners' Fund under the Act 49 Vic., chap. 76, section 16. Presented to the House of Commons, 5th March, 1890.—Mr. Langelier (Quebec Centre)—

Printed for both Distribution and Sessional Papers.

- 48a. Return to an address of the House of Commons to His Excellency the Governor General, dated 22nd January, 1890, for copies of all Orders in Council, correspondence and documents respecting the establishment of the Marine Hospital at Quebec and respecting the closing of the same. Presented to the House of Commons, 17th March, 1890.—Mr. Langelier (Quebec Centre)......Not printed.
- Return to an order of the House of Commons, dated 29th January, 1890, for a return showing whether or not the island known as Sultana Island, in the Lake of the Woods, has been sold, and if sold, showing by what right or title the Government of Canada claimed to have the power to sell the same; showing, also, all correspondence had between the Government of Canada and the purchaser or purchasers of said island, or the solicitors or other persons acting on behalf of such purchaser or purchasers (if any); showing, also, the area of land contained in said island, and the value and extent of the pine timber thereupon, and the price or amount for which the said island was sold, and the names and addresses of the purchaser or purchasers thereof. Also any map showing locality of island. Presented to the House of Commons, 5th March, 1890.—Mr. Barron— Not printed.
- 49a. Supplementary return to an order of the House of Commons, dated 29th January, 1890, for a return showing whether or not the island known as Sultana Island, in the Lake of the Woods, has been sold, and if so, showing by what right or title the Government of Canada claimed to have the power to sell the same; showing, also, all correspondence had between the Government of Canada and the purchaser or purchasers of said island, or the solicitors or other persons acting on behalf of such purchaser or purchasers (if any); showing, also, the area of land contained in said island, and the value and extent of the pine timber thereupon, and the price or amount for which the said island was sold, and the names and addresses of the purchaser or purchasers thereof. Also any map showing locality of island. Presented to the House of Commons, 2nd April, 1890.—Mr.
- Return to an order of the House of Commons, dated 17th April, 1889, for a return showing the number of permanent clerks employed by the Department of the Interior, including inside and outside service. And also the number of extra clerks at present in the employ of the said department in the same service. Presented to the House of Commons, 5th March, 1890.—Mr. Weldon (St. John)—
- Official correspondence in the matter of Private C. J. Hurrell, applying for further compensation as a wounded volunteer. Presented to the House of Commons, 7th March, 1890, by Sir Apolphe
- Official correspondence in the matter of Valiquette's pension. Presented to the House of Commons.
- 51b. Return to an order of the House of Commons, dated 26th March, 1890, for a statement showing: 1. The date when Private C. T. Hurrell was notified by the Government of the passing of the passing of the Order in Council of the 13th November, 1888, granting him a pension. 2. The amounts paid him by way of gratuity or pension, and the dates of such payments. Presented to
- 51c. Copy of a declaration made by Antoine Valiquette, father of the late Primat Valiquette, sergeant in the 65th Battalion. Presented to the House of Commons, 18th April, 1890, by Sir A. P. Caron. Not printed.
- Return to an order of the House of Commons, dated 30th January, 1890, for copies of all letters to the Government asking that engineers be sent to examine Kettle Creek, between St. Thomas and Port Stanley, with a view to ascertaining the feasibility of building a canal; and all reports, maps and other documents sent in by such engineers. Presented to the House of Commons, 10th
- Return to an order of the House of Commons, dated 12th February, 1890, for copies of all correspondence between the Government, or any of its departments, and the corporation known as the "Président et syndics de la commune de la seigneurie d'Yamaska," respecting damages occasioned to their lands by the dam erected in the Yamaska River. Presented to the House of Commons.
- 53a. Return to an order of the House of Commons, dated 24th February, 1890, for copies of all claims made by Elphège Cardin, Jean Cardin, George Tonnancourt and Bruno St. Germain, to be compensated for damages occasioned to their lands by the dam erected in the Yamaska River; of all correspondence arising out of such claims; together with a statement of all sums allowed to each of them in settlement of their claims. Presented to the House of Commons, 20th March, 1890.— Hon, Mr. Laurier. Not printed.

- 55. Return to an order of the House of Commons, dated 22nd January, 1890, for copies of all correspondence and documents respecting the appointment of Mr. Joseph Garneau as Superintendent of Government works at Quebec; and respecting his removal and the substitution of a person named L. P. Lépine. Presented to the House of Commons, 10th March, 1890.—Mr. Langelier (Quebec Centre). Not printed.

- 56c. Return to an order of the House of Commons, dated 12th February, 1890, for copies of two enquiries made by Messrs. Bourgeois, King and Bolduc, respecting the post office at Pierreville, P.Q.—Mr. Choquette.
 Not printed.
- 57a. Return to an order of the House of Commons, dated 27th January, 1890, for copies of the accounts connected with the building of a wharf at Kamouraska, in the province of Quebec, made up in the course of the year 1889. Presented to the House of Commons, 10th March, 1890.—Mr. Dessaint—Not printed.
- 58. Return to an order of the House of Commons, dated 27th January, 1890, for a statement, in detail, showing the expenditure made in connection with repairs to Tignish Breakwater, Prince Edward Island, during 1889; the date of commencement of work, and when completed; the name of party in charge of work. Presented to the House of Commons, 10th March, 1890.—Mr. Perry—

Not printed.

- 59. Return to an order of the House of Commons, dated 24th February, 1890, for copies of the reports made by the chief engineer relating to the survey of Cove Head Harbor, in Prince Edward Island, four or five years ago. Presented to the House of Commons, 10th March, 1890.—Mr. Davies—

- 59b. Return to an order of the House of Commons, dated 24th February, 1890, for copies of any reports made by the chief engineer relating to survey of Tracadie Harbor, Prince Edward Island, some years ago. Presented to the House of Commons, 20th March, 1890.—Mr. Davies....Not printed.

- 59e. Return to an order of the House of Commons, dated 19th March, 1890, for a return of all correspondence, petitions, memorials, reports of the chief engineer of the Department relative to the necessity and expediency of dredging and otherwise improving the harbor at Picton, Bay of Quinté, since 1st January, 1883; and also containing all correspondence, petitions, memorials and reports concerning the desirability or expediency of construction of public buildings at the said town of Picton for the accommodation of post office, customs and inlane evenue offices in that town, since 1st January, 1886. Presented to the House of Commons, 2nd & ril, 1890.—Mr. Platt—
- 59g. Statements and correspondence in reference to the Harbor Works at Quebec, Graving Dock at Esquimalt, etc. Presented to the House of Commons, 16th May, 189c, by Sir Hector Langevin—

 Printed for both Distribution and Sessional Papers.

- 63. Return to an order of the House of Commons, dated 12th February, 1890, for copies of correspondence in connection with a claim, made by the district of St. Peter's, in the county of Richmond, for medical attendance and board of Kenneth Chisholm, a sick mariner, belonging to the schooner "Jeanie." Presented to the House of Commons, 10th March, 1890.—Mr. Flynn—

64. Return to an order of the House of Commons, dated 24th January, 1890 'or a return showing: 1.

The total number of Chinese immigrants who have arrived in the Dominion of Canada from the 31st March, 1887, to the 31st December, 1889, specifying the ports at which such immigrants have arrived. 2. The amount of fees or duties collected from Chinese immigrants during the same period. 3. The number of certificates of residence that have been issued to Chinese as provided for under section 13 of the Act to restrict and regulate Chinese immigration into Canada, since the passage of the Act. 4. The number of Chinese who have been detected in attempting to land in Canada upon fraudulent certificates and who were prevented by the courts from doing so. 5. Copies of all correspondence having reference to the removal from office of Mr. Vroman alias Mr. Gardner, and also all correspondence having reference to the appointment of a Chinaman to the

65. Return to an address of the Senate to His Excellency the Governor General, dated 21st January, 1890, for copies of all reports and other communications in reference to the deposit of sawdust, slabs, or other offensive material, in the Ottawa and other rivers of the Dominion. Presented to the Senate, 10th March, 1890.—Hon. Mr. Clemow—

Presented for both Distribution and Sessional Papers.

- 66. Return to an address of the Senate to His Excellency the Governor General, dated 22nd January, 1890, for a detailed statement showing the settlement effected with the lessees of hydraulic lots at the Chaudière, city of Ottawis; as likewise copies of new leases entered into with the several lessees of the said hydraulic lots. Presented to the Senate, 10th March, 1890.—Hon. Mr. Clemow.

 Not printed.

- 68. Report in relation to the appointment of non-commissioned officers in the Royal Military College.

 Presented to the House of Commons, 13th March, 1890, by Sir A. P. Caron............Not printed.

- 72. Return to an order of the House of Commons, dated 12th February, 1890, for a return showing the annual lesses of ships since 1868 in the Gulf of St. Lawrence and on the Atlantic coast and Bay of Fundy, owing to tides, currents and fogs, with the name and tonnage of each vessel, and such particulars in each case as to the causes and extent of damage, as may be in the possession of the Government. Presented to the House of Commons, 17th March, 1890.—Mr. Curran—

73. Return to an order of the House of Commons, dated 24th February, 1890, for a return showing the number of Reports of the Geological Survey published respectively for each year of the last ten years, the number sold each year, the number distributed gratuitously, and the number still on hand. Presented to the House of Commons, 17th March, 1890.—Mr. Ferguson (Welland)—

Printed for Sessional Papers only.

- 80. Return to an order of the House of Commons, dated 24th February, 1890, for the report and plans of the Chief Engineer of the Department of Public Works employed to make a survey and examination, with a view to the construction of an inter-provincial bridge across the Ottawa River, between the village of La Passe, in the province of Ontario, and the village of Fort Coulonge, in the province of Quebec. Presented to the House of Commons, 1st April, 1890.—Mr. Bryson—

Not printed

- S2. Return to an address of the House of Commons to His Excellency the Governor General, dated 22nd January, 1890, for copies of all correspondence between the officers of the Temperance Colonization Company, and the officers of the Saskatchewan Land and Homestead Company, and the Department of the Interior, or any member of the Government; and all correspondence between Rev. Alexander Sutherland and John T. Moore and the Department of the Interior, or any member of the Government, in relation to the location of lands and claims for placing immigrants on lands, and compensation for assisting immigration to the said lands, together with all Orders in Council relating to such claims. Presented to the House of Commons, 14th April, 1890.—Mr. Somerville—
- 82a. Supplementary return to an address of the House of Commons, to His Excellency the Governor General, dated 22nd January, 1890, for copies of all correspondence between the officers of the Temperance Colonization Company and the officers of the Saskatchewan Land and Homestead Company and the Department of the Interior, or any member of the Government; and all correspondence between the Rev. Alexander Sutherland and John T. Moore and the Department of the

- 83. Return to an order of the House of Commons, dated 10th March, 1890, for copies of all petitions and correspondence respecting the placing of a floating light opposite Yamachiche, in Lake St. Peter, River St. Lawrence. Presented to the House of Commons, 16th April, 1890—Mr. Rinfret.
- 83a. Return to an order of the House of Commons, dated 19th March, 1890, for copies of all petitions, correspondence and documents whatsoever respecting the placing of a floating light on the St. Lawrence opposite the church of Ste. Croix, in the county of Lotbinière, in place of the buoy now located there. Presented to the House of Commons, 25th April, 1890.—Mr. RinfretNot printed.
- 84. Report of Collingwood Schreiber, Esq., Chief Engineer and General Manager of Government Railways, on the completion of the location survey of the proposed line of railway between Harvey Station on the New Brunswick Railway, and a point on the Intercolonial Railway near Moneton viâ Fredericton, known as the "Harvey-Moncton Section of the Short Line Railway." Presented to the House of Commons, 24th April, 1890, by Sir John MacdonaldNot printed.
- 86. Return to an order of the House of Commons, dated 24th January, 1890, for a return of all papers and correspondence between the Ontario Manufacturers' Association and the Dominion Government, during the years 1883, 1884 and 1885, on the subject of proposed legislation relating to factories. Presented to the House of Commons, 1st May, 1890.—Mr. Edgar......Not printed.
- 87. Return to an order of the House of Commons, dated 30th January, 1890, for copy of report made and evidence taken by the court of enquiry ordered by the Department of Marine to investigate the loss of the steamer "Quinté," which was burned on Bay of Quinté in the autumn of 1889. Presented to the House of Commons, 2nd May, 1899.—Mr. Platt.......Printed for Sessional Papers only.

- 87c. Return (in part) to an order of the House of Commons, dated 5th March, 1890, for a return of all claims made by the Government since Confederation against individuals, companies or corporations for damages done to Government property by steamers, vessels or other craft; giving the names of vessels, etc., their owners, dates and items of each claim, distinguishing those paid and unpaid. Presented to the House of Commons, 16th May, 1890.—Mr. Cook..........Not printed.
- 88. Return to an order of the House of Commons, dated 14th April, 1890, for copies of all agreements made between the Government, or the Minister of Railways, and the Western Union Telegraph Company, respecting the construction and operation of a telegraph line along the Cape Breton Railway. Presented to the House of Commons, 2nd May, 1890.—Mr. Macdonald (Victoria)—
- 89. Return to an order of the House of Commons, dated 14th April, 1890, for copies of the petitions, letters, and the plans and engineers' reports respecting the projected dam at Hungry Bay, in the county of Beauharnois. Presented to the House of Commons, 2nd May, 1890.—Mr. Bergeron—

- - 91a. Return to an order of the House of Commons, dated 10th March, 1890: 1. For a return, in detail, of all expenses attending the passage and enforcement of the Liquor License Act of 1883 up to date.
 2. The amount of all law costs re its constitutionality. 3. The names of all the legal firm or firms employed by the Government, and the amount paid said firm or firms. Presented to the House of Commons, 16th May, 1890.—Mr. Trow.
 - 92. Return to an order of the House of Commons, dated 14th April, 1890, for copies of all correspondence between the Department of Militia and Defence and the officers of the staff of Military District No. 1 regarding the pay and allowances of said officers. Presented to the House of Commons, 6th May, 1890—Mr. Scriver.
 Not printed.

- 94. Correspondence respecting the surrender of the Anderson contract for the Atlantic Steamship Service.

 Presented to the House of Commons, 13th May, 1890, by Hon. G. E. Foster—

Printed for Sessional Papers only.

- 96. Return (in part) to an order of the House of Commons, dated 23rd January, 1890, for a return showing the amount of money expended by the Dominion in each province since Confederation to the 30th of June, 1889, under the following heads: 1. Subsidies to railways in each province, excepting the Canada Pacific main line and Sault branch; 2. The several railways built by the Dominion in each Province, including the Intercolonial branches and extensions, but not the main line as originally constructed; 3. The buildings erected or purchased in each province, their location and cost. Presented to the House of Commons, 7th May, 1890.—Mr. McMullen—

Printed for both Distribution and Sessional Papers.

- 98. Return to an order of the House of Commons, dated 12th February, 1890, for a return showing the names of the six Pagans returned for the parish of Ste. Elizabeth, in the county of Joliette and province of Quebec, in the census returns of 1881, as appears from the original schedule of the enumerator for that parish. Presented to the House of Commons, 16th May, 1890.—Mr. Charlton.

 Not printed.

ANNUAL REPORT

OF THE

DEPARTMENT OF THE INTERIOR

FOR THE YEAR

1889.

PRINTED BY ORDER OF PARLIAMENT.



OTTAWA:

PRENTED BY BROWN CHAMBERLIN, PRINTER TO THE QUEEN'S MOST EXCELLENT MAJESTY.



To His Excellency the Right Honourable Lord Stanley of Preston, Governor General of Canada, &c., &c.

MAY IT PLEASE YOUR EXCELLENCY:

The undersigned has the honour to lay before Your Excellency the Report of the transactions of the Department of the Interior for the year ending 31st October, 1889.

Respectfully submitted,

E. DEWDNEY,

Minister of the Interior.

OTTAWA, 3rd March, 1890.



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ANNUAL REPORT

OF THE

DEPARTMENT OF THE INTERIOR

FOR THE YEAR 1889.

DEPARTMENT OF THE INTERIOR,
OTTAWA, 28th February, 1890.

To the Honourable Edgar Dewdney, Minister of the Interior.

SIR,—I have the honour to submit the Annual Report of the Department of the Interior for 1889. This report covers the transactions of the Department in all its agencies in Manitoba, the North-West Territories and British Columbia, as well as at the Head Office, up to the 31st October last, and also contains a statement of everything of importance which has happened in relation to the Departmental business up to the close of the calendar year.

INSIDE SERVICE.

I regret to record the death, on the 20th April last, of Mr. P. B. Douglas, who held the position of Assistant Secretary. By that event the Department was deprived of the services of an officer in whom were united, in no ordinary degree, intellectual ability and executive capacity. Although he was still in the prime of life, Mr. Douglas had been in the service of the Government since the establishment of the Department. The vacancy caused by his death was filled by the promotion of Mr. Lyndwode Pereira. ...

OUTSIDE SERVICE.

During the past summer the Dominion Lands Agency for the Dufferin District was closed and the books and records were transferred to the Winnipeg Land Office. The greater part of the business consisted of correspondence. Nearly all the lands in the southern part of the agency and in the vicinity of the land office at Manitou had been disposed of, and the lands in the northern part of the district could be more conveniently dealt with at Winnipeg, as in order to reach Manitou from this more northerly section it was necessary either to make a long journey across the country or to go to Winnipeg by the Manitoba South-Western Railway, and from thence to Manitou by the South-Western branch of the Canadian Pacific Railway.

For the season of 1889 the agency for the Touchwood District was located at Saltcoats, that point being at the time the terminus of the Manitoba North-Western

5.2

Railway. This location was selected for the land office because most of the immigration into the Touchwood District passes over the Manitoba North-Western Railway Company's line, and the land taken up by settlers would naturally be as near as possible to the railway. Mr. T. B. Ferguson, who has for some years been actingagent for this district, was formally appointed as agent.

The Dominion Lands Office for the Coteau District has been removed from Carlyle to Cannington, as it was found that a majority of the incoming settlers passed through the latter place on their way to take up lands. The resignation of the agent, Mr. J. J. McHugh, has been accepted, and Mr. C. E. Phipps has been appointed as his successor.

I regret to have to report that the Department has lately received the resignation of Mr. H. B. W. Aikman, Agent of Dominion Lands for British Columbia, and member of the Land Board, who quitted the service of the Department on the 1st January, 1890. Mr. Aikman's services have been of great value to the Government, on account of his intimate knowledge of the land affairs of British Columbia; and while his retirement is a great loss to the Department, it is satisfactory to be able to say that he leaves his office in such an efficient condition as to make its administration in future comparatively easy. Mr. John McKenzie, the senior clerk in the New Westminster Land Office, has been promoted to the vacancy.

Representations having been made to the Department as to the difficulty of reaching the New Westminster office from points in the eastern part of the railway belt in British Columbia, arrangements are in progress for the erection of a new land district, to be known as the Kamloops District, and to include the portion of the railway belt lying north of a line between Townships 15 and 16, and east of the 7th Meridian. The land office will be at Kamloops.

CROWN TIMBER AGENCIES.

During the year the resignation of Mr. D. J. Waggoner, Crown Timber Agent at Prince Albert, was received and accepted, and the office was abolished, the duties of the position being performed by the agent of Dominion Lands at Prince Albert.

HOMESTEAD AND PRE-EMPTION ENTRIES AND SALES.

Following is a comparative statement of the homestead and pre-emption entries and sales which have been made at the several agencies of the Department during the years 1888 and 1889:—

	1888.	1889.
Homesteads, (acres)	420,333	696,050
Pre-emptions, (acres)	70,521	212,651
Sales, (acres)	197.140	177,092

It is very satisfactory to be able to state that the area of land entered by actual settlers under the provisions of the Dominion Lands Act during the past year is greater than in any previous year in the history of the Department, except 1882 and 1883. Since 1885, when the area entered for homestead purposes had fallen to

249,552 acres, the increase has been gradual but continuous. The area for the year 1888 exceeded that for the previous year by over 100,000 acres. The increase in 1889 over 1888 is about 275,000 acres. On the basis which has been assumed in these reports in past years of five persons to each family settled upon a homestead, and making a liberal deduction for possible cancellations on account of failure to comply with the requirements of the law and the regulations, the area taken up as homesteads last year is sufficient to maintain over 20,000 people.

There is also an increase in the area pre-empted of about 130,000 acres. Great care was taken to notify the public that, according to the law, the privilege of pre-emption would terminate with the close of the last calendar year, and settlers were doubtless stimulated by this fact to apply for and obtain pre-emption entries who otherwise might not have done so. It may be important to state in this relation that arrangements are being made by which any inconvenience that might be experienced in consequence of the termination of the pre-emption privilege will be avoided, and settlers who desire to increase their holdings and have the means of farming a larger area than 160 acres will be permitted to purchase on comparatively easy terms the quarter section adjoining the homestead which fomerly could have been acquired by pre-emption. This, of course, is a matter which it is within the power of the Governor in Council to regulate under the authority in that behalf conferred by the Dominion Lands Act.

In previous years I have furnished in this report a comparative table showing the land transactions of the Department year by year, from 1872 down to the close of the last Departmental year. On making an analysis of this table for other purposes during the summer, however, I discovered that deductions could be drawn from it which the facts would not warrant. The transactions year by year were stated correctly enough; but as homesteads and pre-emptions have been made the subject of two or even three entries in different years, as the result of cancellation or forfeiture, and as there was ground for thinking that the table would be misleading as to the whole area of land disposed of unless a proper deduction were made for these cancellations and forfeitures, I decided to omit the table this year. I hope, however, to be able to insert it in the report of next year, as the work of examination and correction is now in progress.

I submit, as usual, a statement, showing the number of homestead and pre-emption entries reported in each year since 1874, and the number and proportion of those entries which have since been cancelled for non-fulfilment of the conditions of entry. This table has been carefully revised and corrected from the returns which are received every month from the office of the Commissioner of Dominion Lands and the various Dominion Land Agencies. A comparison with the figures published in previous reports will show that the cancellations which have lately taken place have been principally of entries made in the earlier years of the settlement of the North-West. A very small proportion of the entries made in recent years have been cancelled, showing that there has been a great decrease in the number of speculative entries and a corresponding increase in the number made by bonû fide settlers.

		Homestead.		Pre-emption.							
Year.	No. of Entries.	No. Cancelled.	Percentage Cancelled.	No. of Entries.	No. Cancelled.	Percentage Cancelled.					
1874. 1875. 1876. 1877. 1878. 1879. 1880. 1881. 1882. 1883. 1884. 1885. 1886. 1887. 1888.	1,376 499 347 845 1,788 4,068 2,074 2,753 7,383 6,063 3,753 1,858 2,657 2,036 2,655 4,416	863 295 145 485 1,323 1,937 627 864 2,868 1,196 528 109 28 12	63 59 42 51 74 47 30 31 39 20 14 6 1 ½ of 1	643 391 263 594 1,580 1,729 1,004 1,649 5,654 4,120 2,762 653 1,046 585 454 1,355	597 223 131 334 888 1,407 438 609 2,066 784 376 75 9	93 57 49 56 56 81 43 36 37 19 13 11 $\frac{8}{V_0}$ of 1					

CORRESPONDENCE.

The following statement shows the number of letters received and sent by the Department in each year since its establishment. The total number of letters received and sent during the last year was 99,816, of which 5,816 were received and 7,100 sent by the Geological Survey Branch. This is an increase of 4,111 as compared with 1888.

${f Y}{ m ear}.$	Letters received.	Letters sent.	Total.
1874 1875 1876 1877 1878 1879 1880 1881 1882 1883 1883 1884 1885 1886 1887 1887	3,482 1,974 2,256 3,137 4,642 5,526 8,222 13,605 25,500 27,180 27,525 33,970 60,964 47,845 43,407 49,316	4,150 2,189 3,097 3,677 6,009 6,179 9,940 15,829 30,300 33,500 33,500 33,386 43,997 67,973 60,890 52,298 50,500	7,632 4,163 5,353 6,814 10,651 11,705 18,162 29,424 55,800 60,680 60,911 77,967 128,937 108,735 95,705 99,816

REVENUE STATEMENT.

Herewith is a statement showing the receipts of the Department from year to year since its establishment, from every source except Ordnance and Admiralty Lands, of which an entirely separate account is kept. The net revenue for the last Departmental year was \$588,861.81, as compared with \$563,709.02 for the previous year.

STATEMENT showing Receipts on account of Dominion Lands from 1st July, 1872, to 30th June, 1889.

E E	11mber Dues.	& cts.	2,710 55 2,335 25 2,335 25 387 00 1,620 00 25,121 46 25,753 14 58,753 14 58,753 14 58,753 14 58,7474 99 64,520 31 65,111 74 90,230 00
Inspection, Can-	Inspection, Can- cellation, and Sundry Fees.		1,713 45 29,600 1,713 45 29,685 00 5,9885 00 5,778 40 12,778 40 12,078 53 20,402 50
	Miscellaneous.	sto.	125 50 100 00 1100 00 183 25 37 58 10 501 77 45,766 53 50,070 00 20,070 00 20,591 41 10,389 57
Surveyors,	nation Fees.	e cts.	180 00 310 00 580 00 580 00 890 00 800 00 80
Map Sales, Óffice	Registration Fees, &c.	\$ cts.	129 00 4 00 81 00 245 40 245 40 3,085 40 1,289 55 1,689 38 1,171 39 1,600 75 1,410 16
ES.	Scrip, &c.	e cts.	320 00 136,955 16 120,159 54 210,948 84 81,685 86 70,828 30 50,590 84 40,919 67 45,875 90 337,640 19 313,522 67 318,238 57
SALES	Cash.	& cts.	19,170 20 13,689 75 13,669 90 3,478 94 1,085 86 2,978 87 17,170 17 77,170 17 516,092 27 516,092 199,275 199,275 36 199,275 37 76,49 48 16,49 48 16,49 48 16,49 48 16,49 18 16,49 18 16,40 18 175,513 16
Improve-	ments.	s cts.	263 00 1,758 00 7,114 91 2,596 11 2,538 75 1,101 50 1,971 55 1,971 55 1,918 35 4,128 48
Pre-emption Fees.		ets.	10,241 43 10,891 75 39,843 00 54,725 00 28,810 00 11,371 00 6,887 93 4,880 00 10,550 00
Homestead Fees.		s cts.	7,310 00 11,510 00 4,680 00 2,250 00 14,540 00 17,690 00 17,690 00 17,800 00 2,450 00 2,450 00 2,450 00 2,515 00 2,510 00 2,510 00 2,510 00 2,510 00 2,510 00 2,510 00 3,60 00 2,510 00 2,510 00 2,510 00 3,60 00 2,510 00 2,610 00
Fiscal Vear.			1872.73 1872.74 1873.74 1875.76 1875.77 1877.78 1879.80 1880.81 1882.83 1882.83 1882.83 1885.86 1885.86 1886.87 1887.88 1886.87 1887.88

STATEMENT showing Receipts on account of Dominion Lands, &c.—Concluded.

T. A.	GRAZING	LANDS.	HAY PERMITS, MINING FEES, STONE QUARRIED, &C.	cs, Mining Uarried, &c.	Rocky Mountains	Colonization Lands	ON LANDS.	Gross	D.frg.	Not Doming
r iscal x ear.	Cash.	Scrip, &c.	Cash.	Scrip.	Park of Canada.	Cash.	Scrip.	Revenue.	Permus:	net nevenue.
	& cts.	& cts.	t cts.	e cts.	e cts.	& cts.	s cts.	& cts.	& cts.	& cts.
								26,239 45 29,980 80		
1875-76								27,641 15 8,865 94		27,641 15 8,865 94
								139,584 40		
								234,732 93 206,801 37		
	2.245 00		40 00			354,036 17		206,990 54 1,805,734 87	5,038 22 10,687 55	
			913 91			248,492 01		1,051,403 60		
			815 63			1,214 22		451,564 65		
:	29,562 51	3,131 08	1,284 83					457,973 95		
		23, 023, 28	2.273 73	88	2.951 58		10.000 00	569,986 68		
	2,207 69	16,802 63	3,946 55		2,528 73		16,000 00	594,088 04		
Fotals,	105,485 22	82,444 66	11,485 95	160 00	5,480 31	857,455 80	26,000 00	7,542,652 86	144,835 42	7,397,817 44

J. A. PINARD, Accountant.

Department of the Interior,
Accountant's Branch,
Ottawa, 4th January, 1890.

PATENTS.

The number of Letters Patent issued by the Department in each year since 1874, and the number of those issued in each year which have since been cancelled, is shown by the following statement:—

		V	Letters 1	Patent.
		Year.	No. Issued.	No. Cancelled.
Departmental year edo do d	nding 31st Octo do	ber, 1874. 1875. 1876. 1877. 1878. 1879. 1880. 1881. 1882. 1883. 1884. 1885. 1886. 1887. 1888.	536 492 375 2,156 2,597 2,194 1,704 1,768 2,866 3,591 3,837 3,257 4,570 4,599 3,275 3,282	6 4 4 13 32 57 41 11 16 24 18 17 26 34 30

As mentioned in last year's report, the Territories Real Property Act was amended during the Session of 1887, by providing that the notification to the Registrar from the Minister of the Interior that the lands described therein have been granted to any railway company entitled to Dominion lands under the authority of an Act of Parliament shall be accepted by the Registrar as if such notification were letters patent in favour of such Company. The same Act provided that the notification to the Hudson's Bay Company by the Minister of the Interior, under the provisions of sub-section 7 of section 22 of the Dominion Lands Act, of the survey and confirmation of the survey of any township or part of a township, shall be accepted by the Registrar as equivalent to letters patent in favour of the Company for the lands to which they are entitled in such townships or parts of townships under the provisions of the Dominion Lands Act. These notifications usually cover considerable areas of land, and the labour incident to passing the Crown title to these areas has, as will be observed by the decrease in the number of patents as compared with previous years, been materially lessened by the operation of the amendment alluded to.

TIMBER, MINERAL AND GRAZING LANDS.

The revenue from the above sources during the past year amounted to \$102,732.61, a decrease as compared with 1888 of \$19,015.28. The timber dues are less than those of 1888 by \$14,781.92, being for this year \$77,071.97. Of the revenue for timber, \$18,044.77 was derived from bonuses, ground rents and royalties on timber cut from lands in the railway belt in British Columbia, being \$7,522.74 less than the previous year; but the Crown Timber Agent reports that he has collected since the 31st of October last the sum of \$15,147.61 on timber cut within the twelve months preceding that date. Taking this amount into consideration, the dues collected for

timber cut within the Departmental year, namely, from the 31st of October, 1888, to the 31st of October, 1889, amounted to \$33,192.38, being an increase of \$7,624.87 over the amount collected for timber cut during the previous year.

Grazing lands show a decreased revenue, as compared with 1888, of \$7,811.12, but the dues received for hay, \$6,909.55, exceed the amount received the previous year by \$3,539.98.

The receipts for minerals other than coal were \$184.15. No tract of coal land of considerable area was offered for sale during the year, and the amount received from that source was only \$1,662.50, being \$73,037.50 less than the previous year. The total area of coal lands sold up to date is 12,261.63 acres, and the total sum received therefor \$126.171.32.

PRICE OF LUMBER.

Following is a comparative statement of the average prices of lumber within the several Crown Timber Agencies for the last five years. The cost of this article to the settler has been very much reduced within that time, and I do not think any further reduction can reasonably be looked for, except at remote points:—

	1885. 1886.						1887.					1	1888	3.			1	889					
		Pe	r M.			Pe	r N	1.			Per	M	Ε.		P	er I	M.			P	er I	νI.	
Edmonton Calgary Fort McLeod Prince Albert Winnipeg. Cypress Hills Lethbridge British Columbia.	30 13 10	00 00 50 00	to 3 to 4 to 2 to 1	0 00 0 00 5 00 5 00 5 00	15 30 30 25	00 00 00	to to to	20 37 42 16 36 25	00 00 00 00 00 00	20 21 10 10	00 t 00 t 00 t	0 0 0	\$23 00 17 00 40 00 42 00 40 00 12 00 30 00	12 15 20 12	00 00 00 50 No	to to to to	18 43 42 40 les. 30	$00 \\ 00 \\ 00 \\ 00$	12 15 20 12	$\frac{00}{00}$	to to to	18 43 42 40 13 30	$00 \\ 00 \\ 00$

PRICE OF FUEL.

The Crown Timber Agent at Winnipeg reports that fuel is somewhat cheaper than last year, cordwood on the railway car at Winnipeg being \$2.75 to \$4.50 per cord for poplar and spruce, respectively, and \$8.75 is asked for American anthracite coal on car, and \$6.76 for native soft coal. The agent further reports that about 18,000 cords of wood and 30,000 tons of coal were sold in the Winnipeg and western markets during the year, and of the coal thus disposed of about 12,000 tons came from the North-West Territories.

LIVE STOCK.

The total number of cattle, horses and sheep in what are known at present as the grazing districts of Alberta and Assiniboia, as reported by lessees of ranches, and computed from information derived from other sources, is as follows:—

Cattle	106,963
Horses	13,322
Sheep	44,822

These totals are only approximate, and cannot be considered as representing the number of live stock within the territory in question, as I have no doubt there is a far greater number than the statistics gathered show. No information has been received as to the number of live stock in Manitoba nor in the remainder of the North-West Territories not included in the districts mentioned.

DUES ON BURNT AND FALLEN TIMBER.

During the year 1887 forest fires in Manitoba and the North-West were more than usually destructive, and I regret to say that the experience of last year was equally unfortunate. One of the consequences of these fires has been the partial destruction of quantities of timber upon berths under license to mill owners. It is well known that unless the timber which has been injured by fire is manufactured into lumber within two years from the time of the fire, it is rendered not only useless but harmful, inasmuch as it falls down, and being highly inflammable is a constant source of danger to what living trees there may remain in the locality. During my visit to the North Saskatchewan last autumn it was represented by various deputations of mill owners that it would be very desirable, in the interests of the country, as also in the interests of the licensees of timber births, that some inducement should be offered to cut and manufacture as much as possible of the the timber so injured before it became useless. These representations were duly submitted to you on my return, and steps have since been taken to reduce the royalty upon lumber manufactured from timber of this class to one-half the ordinary amount

During the early part of last Session, after conference with the Senators and Members of Parliament from Manitoba and the North-West, you issued instructions to permit actual settlers on Dominion lands to obtain permits for 25 cents each, enabling them to cut all the burnt and fallen timber under 7 inches in diameter which they might require for their own use for fuel and fencing. This decision appears to have been very acceptable to the people.

TIMBER IN THE RAILWAY BELT IN BRITISH COLUMBIA.

The regulations governing the disposal of timber in Manitoba and the North-West Territories were, in September last, made to apply to timber in the railway belt in British Columbia, except as regards the ground rent for berths situated west of the Eagle Pass, which is 5 cents per acre per annum, as compared with \$5 per square mile, and a rebate of one-half the royalty upon lumber exported to foreign countries, which is also provided for by the regulations of the Provincial Government.

HAY LANDS.

In consequence of the injury to the hay crops resulting from cutting the hay before the seed matures, instructions were given in the month of May last that provision be made in the permits to be issued that no hay should be cut before the 20th July. A clause to this effect appears in the regulations of the 17th of September last, and meets with the approval of the people.

The nominal charge of 10 cents per ton for hay cut by settlers for their own use clearly indicates that in adopting the permit system it was never contemplated to derive a revenue therefrom, but the object aimed at, and which I think has been realised, was the preservation of the hay and a fair division amongst the settlers of the crop according to the number of their stock.

The Commissioner of Dominion Lands has recommended that hay lands be sold by public auction or otherwise, giving as his reason that the work involved under the present system seems to be out of all proportion to the revenue. This is very true, for, as already explained, the system never contemplated the creation of revenue; but if the hay lands pass out of the hands of the Government, it is a question whether the settlers at large would obtain as fair a division of the hay in their neighbourhood and at such a low figure as they do now. This is a matter which will require careful consideration.

FOREST FIRES.

It has been suggested that the Department should take further precautions for the prevention of forest fires. This might be possibly done if the present staff of forest rangers were greatly increased, but the good to be derived from this large additional expense would, I am afraid, not be adequate to the cost incurred. Our agents have rendered good service in endeavouring to prevent forest and prairie fires, and bringing to justice those who have originated them. I think it will be found that these fires will be of less frequent occurrence when the country becomes more settled, as the settlers will naturally, for their own protection, do all they can to prevent them. Meantime, I fear no increase of the staff which would be at all reasonable would be effective in protecting the timber on our public lands from these destructive visitations.

During my visit to Edmonton last season, what I had already heard as to the rapid reproduction of trees by natural processes on land on which the timber had been burned was confirmed by personal observation. Trees which are now springing up will, in the course of a few years, be at least fit for fuel, so that there need not be the slightest alarm that there will not always be a plentiful supply of wood for settlers.

The subject of re-foresting the prairie is one which deserves the greatest attention, but falls I think within the scope of the experimental work being conducted so ably and successfully under the Department of Agriculture by the Director of the Experimental Farms.

MINERALS WITHIN THE RAILWAY BELT IN BRITISH COLUMBIA.

At the date of last year's report the question of the ownership of the precious metals in the railway belt in British Columbia had been argued before the Judicial Committee of the Imperial Privy Council, and on the 3rd of April following judgment was delivered to the effect that they are vested in the Crown, subject to the control and disposal of the Government of British Columbia. In view of the anomalous condition of mineral rights within the belt, arising out of this decision, the jurisdiction over the lands being vested in the Dominion Executive, and the right to administer the precious metals being the concern of the Province, the following arrangement

between the two Governments was ratified by Orders in Council dated the 11th and 28th of February, 1890:—That all minerals, with the exception of coal, within the belt, may be administered under the mining laws of the Province; that all Dominion lands within the belt containing minerals, not being Indian reserves or settlements, and not being under license or lease from the Dominion Government, shall be open for purchase by the Provincial Government at the price of \$5 per acre; that nothing in the agreement shall apply to coal lands, or interfere with the operation of sub-section 4 of section 29 of the Dominion Lands Act, which provides that such unoccupied lands as the Minister deems expedient from time to time may, when he so orders, be withdrawn from ordinary sale and settlement and sold at auction to the highest bidder; that the agreement may be terminated at any time by either Government; and that all minerals, including gold and silver, within Indian reserves, shall be administered by the Department of Indian Affairs.

SCHOOL LANDS.

It was not considered advisable to hold any general sale of school lands in Manitoba or the North-West Territories during the past year. In Manitoba, Section 11 in Township 10 Range 19 west of the First Meridian, near the town of Brandon, and Section 29 in Township 13 Range 19 west of the First Meridian, adjoining Rapid City, were offered for sale on the 22nd and 29th of December, 1888, respectively, and realized very satisfactory prices. Of the Brandon section, 293:16 acres were disposed of, part in villa lots and the remainder in one quarter section, for the sum of \$7,238.34, or \$24.70 per acre. The north half of the school section at Rapid City was offered in quarter sections; the south half in 147 town lots. The north-east quarter, 156 acres in area, was sold for \$1,326, or \$8.50 per acre, and 55 town lots were disposed of for \$2,598, an average price of \$47.23 per lot. June, 20 acres of Section 11 in Township 15 Range 18 west of the First Meridian, situated near Minnedosa, were sold by auction for \$20 an acre. In the North-West Territories, a sale was held at Calgary during the month of July, at which the undisposed of portion of Section 11 in Township 24 Range 1 west of the Fifth Meridian, 515.92 acres in area, for which a number of applications had been made, was offered at public auction, and realized the sum of \$8,265.96, or \$16.02 per acre.

The portion of the south-east quarter of Section 11 in Township 22 Range 29 west of the Fourth Meridian, situated south of the Bow River, and containing 63.80 acres, was also offered at the same sale, and was disposed of for \$414.70, or \$6.50 per acre.

With a view of obtaining accurate information for record as to the character and value of the school lands in Manitoba, also for the purpose of ascertaining to what extent these lands have been squatted on, and the nature and extent of the settlement in each case, a system of school lands inspection was established in May last, and a competent person was temporarily employed as inspector. Later on, the services of two of the forest rangers of the Department were also utilized for the purpose. The inspection for the present is chiefly confined to school sections applications to purchase which have been made, and from the information already obtained the Department will be in a position to appraise these lands accurately and to select for the next sale, after consultation with the Provincial authorities, those which have most nearly reached their fair maximum value.

SCHOOL LANDS ACCOUNTS.

The revenue from school lands for the year ending the 31st of October last was as follows:—

Manitoba North-West Territories	\$42,859 82 11,159 74
Total	\$54,019 56

This statement merely shows the sum recieved, but from that will have to be deducted the amounts chargeable to the fund. I am now in correspondence with the Finance Department with a view to having the accounts adjusted so that the interest, if any, due upon the Manitoba account, may be paid over to the Provincial Government for the purposes specified in the provisions of the Dominion Lands Act having reference to the school endowment. Under the Act 41 Victoria, Chapter 13, \$30,000 has been advanced at different times to the Local Government for the more pressing needs of education in the Province, and, according to the Act cited, this sum would bear interest at 5 per cent. per annum until repaid out of the proceeds of the first subsequent sale of school lands. The cost of administration will also, of course, have to be deducted; but that at most will be very trifling.

THE MORMON COLONY AT LEE'S CREEK.

It will be remembered that when the delegation of intending Mormon settlers visited Ottawa in December, 1888, they gave to the Government the most positive assurance that in removing to Canada they understood that they were coming to a country where the law forbade the practice of polygamy, and that they intended and desired in good faith to conform to this law. During the past year, however, representations reached the Department from various sources in the North-West that the Mormons of the Lee's Creek colony were not adhering to the pledge given by their delegates; and communication was had with Mr. Charles O. Card, the leader of the settlement, calling his attention to these representations, and stating that there was likely to be a strong public sentiment against the Mormons unless it could be immediately and clearly proven that the statements were untrue. Replies were promptly received from Mr. Card and other leading men of the colony, in which it was stated that they had not lost sight of the agreement which they had entered into with the Dominion Government, denying the truth of the charges made against the members of the settlement, and inviting the fullest investigation into the doings of the community.

TOPOGRAPHICAL SURVEYS.

Last season was not a favourable one for the surveys. During the greater part of the summer great fires ran over the Rocky Mountains, and the smoke in British Columbia and the western part of the Territories was so dense as to interfere seriously with survey operations. Several parties were idle for long periods, and most of them lost much of their time.

The demand for the sub-division of land in new localities continues to increase. This is due in part to the progress of branch railways, and in part to isolated settlements formed on choice pieces of land outside of surveyed territory. It has been

the endeavour of this Department to meet this demand, and notwithstanding the small number of surveyors employed and the moderate amount expended for surveys, it is satisfactory to be able to state that the requirements of the settlers have been fully attended to.

A large proportion of the appropriation was spent on the railway belt in British Columbia, not because a large extent of territory has been covered, but because the nature of the country renders survey work slow and expensive.

As usual, a table of sub-division or settlement survey work completed each year since the commencement of the survey is given hereunder, with the results of last season added.

aaea.		
	Acres.	No. of Farms of 160 acres each.
Previous to June, 1873	. 4,792,292	29,952
In 1874	. 4,237,864	26,487
1875	. 665,000	4,156
1876	420,507	2,628
1877		1,448
1878	. 306,936	1,918
1879	. 1,130,482	7,066
1880	4,472,000	27,950
1881	. 8,147,000	50,919
1882	. 9,460,000	59,125
1883	27,000,000	168,750
1884	. 6,400,000	40,000
1885		2,448
1886	. 1,379,010	8,620
1887		4,023
1888	. 1,131,840	7,074
1889		3,231
	71,326,972	445,795

The total area sub-divided and set out for settlement is 71,326,972 acres, which, on the basis of five persons to each farm of 160 acres, would sustain an agricultural population of 2,228,975 persons, the number of such farms being 445,795.

GENERAL REMARKS ON SURVEY WORK.

An important step has been taken in relation to the mountain surveys, both in British Columbia and the North-West Territories, in beginning a triangulation which will eventually cover the whole of the mountainous territory under the control of this Department. In such a country the holdings occupied or lots of land owned by different parties are necessarily much scattered. Large spaces are valuable only for timber. At other places the rock is bare, while here and there are isolated patches or valley bottoms of the finest agricultural land. To run section lines over the whole of such a country would not only be a waste of money, but in many cases would be impossible. Under the system hitherto followed in British Columbia, the process for connecting a point with the township surveys consisted in running the township lines from the railway as far as the point to be connected.

Thus, for surveying a claim near the boundary of the belt at least twenty miles of township lines-and nearly always a much greater distance-had to be run. It is easy to understand that surveys in such a country are expensive, and the connection of a single claim might very well cost \$3,000 or \$4,000, without even the satisfaction of having established useful survey lines, while the greater part of them would prove quite useless, except for the particular purpose to which their origin was due. Apart from the excessive cost of such surveys, the time required for their execution is a very serious objection. It would take years to have provision made in the Estimates for the cost of the survey, to organize the party, to execute the work, and receive the returns. The triangulation now being carried out will determine, over the whole extent of the mountains, a number of points ten or fifteen miles apart, generally high peaks visible from a great distance. The position of any place from which three of these points are seen can at once be fixed, and the cost of the work will probably not exceed a few cents per square mile. After triangulation comes the topographer, who delineates rapidly the configuration of the country, the course of the main streams and creeks, the outlines of the lakes, the timber and prairie areas—the result being an exhaustive map of the country, showing its resources in detail, and at a small outlay, and permitting intelligent plans to be devised for their development.

THE LAC LA BICHE COUNTRY.

A survey party having been sent to Lac la Biche, near the Athabasca River, for the purpose of laying out the lands settled upon, the surveyor in charge, Mr. P. R. A. Belanger, reports that he found the land very good and well adapted for farming. "The climate," he says, "is very fine-so fine that I do not hesitate to say there is not its equal in any settlement in the North-West. The inhabitants of the place agree in saying that they have never seen any frost to injure their crops." It is now well recognized that a reasonable amount of care on the part of the farmer will generally insure immunity from frost anywhere in the settled part of the Territories, but at Lac la Biche, where the settlers are all Half-breeds, it is doubtful whether even that amount of care has been exercised in putting in the crops. Without, however, going so far as Mr. Belanger does in claiming any marked superiority for this settlement over other districts, it is gratifying to find that it is not inferior to any. This evidence is of great importance, the meteorological conditions at Lac la Biche being the same as on the Athabasca and Peace Rivers; and it is thus safe to expect that when the tide of emigration reaches that far north country the settlers will find there a climate fully equal to the average of the Territories.

THE YUKON AND MACKENZIE EXPEDITION.

Perhaps the most interesting feature of this report is the account given by Mr. Wm. Ogilvie, D.L.S., of the surveys, observations and explorations which he conducted in the Yukon and Mackenzie country, and which will be found in one of the appendices hereto. Mr. Ogilvie was absent from civilization for nearly two years, during which time he made instrumental and track surveys covering a total distance of 2,700 miles in a wild and almost unexplored country, some portions of which, it is certain, were never visited by a white man before. The energy, enterprise and intrepidity of Livingstone, Stanley and others who have explored the wilds of

Africa, have received at the hands of the public of all civilized nations the acknow-ledgement which they merited. In simple and unpretentious language Mr. Ogilvie tells the tale of an expedition of great magnitude and importance, conducted so efficiently, so inexpensively and so rapidly, and yet involving such dangers and hardships as I think will fairly entitle him to rank as one of the first, if by far the most modest, of the explorers of the nineteenth century.

GEOLOGICAL SURVEY.

A summary report by the Director of the operations of the Geological Survey forms Part III of this volume. During the earlier part of the summer the Director was occupied in supervising the printing of the annual report, and in connection with other administrative matters. Subsequently, he made an examination of a number of points on the north shore of the Gulf of St. Lawrence, as far east as Belle Isle, and after his return from this trip visits of inspection were made to the Eastern Townships of Quebec, Sudbury and Algoma. Investigations were also made in connection with the question of water supply by artesian wells in Manitoba and adjacent regions.

In pursuance of the general work of the survey throughout the Dominion, sixteen parties were in the field during a part or the whole of the summer.

In British Columbia Dr. Dawson made a preliminary examination of the West Kootenaie district, which at the moment appears to be of greatest importance in respect to discoveries of rich ores, and in which a large number of silver-bearing deposits have been discovered and partially developed. The remainder of his time was spent in detailed surveys of a region which includes part of the Thompson and Fraser Rivers, of which a geological map is in course of preparation. On the Lower Fraser Mr. Bowman spent some time in continuing his work on the newer formations in which deposits of coal of economic value may be expected to occur.

In the North-West Territories Mr. McConnell was entrusted with an examination of a tract of country between the Peace and Athabasca Rivers, with special reference to the occurrence of petroleum, which has been reported from a number of localities in that district. Mr. Tyrrell was again occupied in the country to the west of Lake Winnipeg in extending and completing former examinations, with a view to a detailed report on that country. In the country to the north-west of Lake Superior surveys toward the detailed geological delineation of the region were continued by Dr. Lawson. Mr. Ingall prosecuted, during the greater part of the summer, his examination of the phosphate region of the Liévre district, making detailed surveys and examinations where necessary.

In the vicinity of Sudbury, of special interest from its copper and nickel deposits, surveys were carried on by Dr. Bell, with a view to the completion of those already effected. Mr. Low was employed in the geological mapping of the country on the north side of the St. Lawrence in the Counties of Quebec and Portneuf, while Dr. Ells was engaged in carrying out work toward the completion of the south-west quarter-sheet of the map of the Eastern Townships; and some further work was carried out in the St. Maurice district and Saguenay region by Mr. Adams and Rev. Abbé Laflamme. In New Brunswick and adjacent parts of Quebec, Prof. Bailey, Mr. McInnes and Mr. Chalmers pursued field work in continuation of that already undertaken

and required for the completion of several sheets of the systematic geological map, which is being extended over these parts of the Dominion.

Messrs. Fletcher and Faribault spent the season in extending the area of the systematic geological examination and mapping of Nova Scotia, the first mentioned gentleman working in Pictou and Colchester Counties, the second in Colchester and Halifax Counties.

A large amount of botanical work has been accomplished during the past year by Prof. Macoun; and, in addition to botanical collections, important zoological collections were made by him in British Columbia. The paleentological work, under Mr. Whiteaves' charge, has progressed satisfactorily, and several important publications have been issued. Interesting collections of fossils were also made in this branch by Mr. Weston in the North-West Territories. The chemical work, under Mr. Hoffmann, shows, as usual, a large number of analyses, assays and examinations of specimens brought in by the various field geologists, or received from other sources.

The continued additions of material to the Museum and to the Scientific Library of the Geological Survey render every day more and more apparent the necessity of a more commodious building for their adequate display and safe-keeping. The building at present occupied by the Survey, though sufficient at the time of its original occupation, cannot any longer be considered as satisfactory, and is exposed, by reason of its construction and contiguity to other buildings, to constant danger from fire. In view of these circumstances, it appears to be necessary to consider the advisability of providing, in the near future, some better accommodation for the collections and offices of the Geological Survey.

ROCKY MOUNTAINS PARK.

Mr. Stewart, Superintendent of the Park, reports that a considerable amount of work has been done during the past season in improving the roads and avenues already constructed, and in opening out new ones, the most important of the latter being one from the Spray River bridge down the Bow River, round the base of Peak Mountain and back again by the Bow River, which, when completed, will afford a charming drive of some seven miles. Several of the streets in the village of Banff were also graded and otherwise improved.

During the summer, which was an exceptionally dry one, forest fires were unusually prevalent in the mountains, and in the month of June a very serious one approaching from the west, swept all before it to the very boundaries of the Park, and threatened to extend into it. Fortunately, partly owing to the protection afforded by the bare summits of the mountains, and partly to the extensive system of "firebreaks" cut out about the Park, the damage caused was comparatively trifling. There is, however, no doubt that the prevalence of smoke from these fires interfered to some extent with the pleasure of visitors, as much of the beauty of the mountain scenery was lost in consequence of it, and but for this drawback the number of visitors, though exceeding that of any previous year, would have been still greater.

A new nursery has been laid out in a better situation than the previous one, and as the soil is good and the facilities for watering excellent it is confidently hoped that it will prove a success.

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The varieties of deciduous trees which were imported and planted out have thriven well, about 75 per cent., so Mr. Stewart reports, having succeeded; but the imported evergreens have to a large extent proved a failure, and it is feared that very few of them will live. There is, however, a plentiful supply of evergreens in the Park already, so that the failure of the imported ones is not of so much consequence, the object in obtaining them being merely to secure, as far as possible, the different varieties of these trees.

The Eau Claire and Bow River Lumber Company have relinquished limits A and C, which include nearly all the timber lands within the Park which have been under lease. There is now but one timber berth within the limits of the reservation, and an effort is being made to exchange other lands for it.

During the month of October the Park was visited by their Excellencies the Governor General and the Lady Stanley of Preston, and suite, who remained there three days. It was also selected for the annual meeting of the Medical Association of Canada, and it is much to be regretted that the visit of this important body should have fallen upon a time when the forest fires were so prevalent, as their impression of the Park would be received under very unfavourable conditions.

A great improvement has been made in the establishment of the telephone system in the Park, connecting the Government offices with the police barracks, hot springs, hotels, &c.

Mr. Stewart submits with his report an interesting statement showing the temperature and other particulars of the weather during the past year, and also a statement showing the number of visitors to the Park, and their nationalities.

With this report will be found a very well executed map of the Park, which I believe will add not a little to the interest with which the publication of the volume will be received.

THE SCOTCH CROFTERS.

Another detachment of Crofters from the western highlands and islands of Scotland arrived in Manitoba last spring, and were placed upon homestead lands in the neighbourhood of Saltcoats, the present western terminus of the Manitoba North-Western Railway. The actual condition of these people has been the subject of a good deal of discussion and misrepresentation in the British press. To say that they are not yet particularly well fitted to make their living purely by the cultivation of the soil in a new country would not be more than the facts would warrant one in saying in regard to almost any similar number of immigrants from any part of the world who settle in a body. These people are under the disadvantage of having their experience of agriculture in the past confined to the cultivation of small crofts. with which they combined fishing. Many of the best settlements in Canada, however, have been formed by people less fitted for agricultural work, and although at first · occasional disappointments and discouragements are to be expected, I see no reason to doubt that in the end the experiment will be a successful one. The colonists in this case were assisted, as were the Crofters who arrived the previous year and who went into the Pelican Lake country, in Southern Manitoba, by advances made by the Imperial Government, which advances are to be repaid in twelve years, and are secured by liens on the homesteads of the settlers. Frequent reports have been

received during the winter, through the Commissioner of Dominion Lands, from the agent of the Imperial Government, who is resident among them. These reports completely refute the statements made as to alleged distress existing amongst the Crofters. As might have been expected, the clothing of the immigrants was not well suited to the climate, and appeals were made in Toronto and Winnipeg to the rich congregations of the Presbyterian Church—to which church these people chiefly belong—to contribute articles of warm clothing for the benefit of the young and aged. This appeal, it will be satisfactory to learn, was answered promptly and liberally: and it was, so far as can be learned, the sole ground for the exaggerated reports alluded to.

GRAIN CROP.

The Commissioner of Dominion Lands has furnished, in his contribution to this volume, a statement of the crop results of last season for Manitoba, as calculated by the Provincial Government. The figures are as follows:—

	Bush.	
Wheat	7,200,000	approximately.
Oats	3,415,000	do
Barley	1,051,000	do
Potatoes	1,393,000	do

This statement, of course, does not include the North-West Territories, and a considerable proportion would have to be added to the figures under each head on that account. There is no doubt that the result, in many instances, was a disappointment to the farmers, although the yield per head of the population would appear to be very large. The drought which prevailed all over the whole western country seemed to be much more detrimental to the crops in some localities than in others, and while the average crop therefore would, from the figures presented, seem to be high, there is scarcity in some localities. But although the harvest north of the 49th parallel was not as good as could be wished, the people of the North-West and of Canada generally have reason for great thankfulness when a comparison is made with the condition of affairs in Minnesota and Dakota, where there is an almost absolute failure, resulting in great and widespread distress. Unfortunately, some of the settlements in the States mentioned which are made up chiefly of Canadians have been the worst sufferers, and appeals have been made to their fellow-countrymen at home for aid, which it is fervently to be hoped will be responded to. There is every reason to believe that a great many of the Canadians in Minnesota and Dakota have had cause to regret that they left their own country, and there is strong probability that the stream of immigration from the States mentioned to Manitoba and the North-West, which has been steadily growing for the last two or three years, will be greatly augmented during the coming season.

THE HALF-BREEDS OF THE NORTH-WEST TERRITORIES.

In September last, with your authority, and under your instructions, I paid a visit to the settlements on the Saskatchewan River, and while prosecuting the duties naturally falling to me in regard to the public lands and land offices in the districts visited, I availed myself of every opportunity to enquire into the condition and prospects of the Half-breed population. I was accompanied by Mr. Deville, the

Surveyor-General, who is a French-speaking gentleman, and I found that he greatly facilitated my communications with these people, for I am not myself sufficiently familiar with the language to speak it with readiness. At that period of the year a large number of the Half-breeds were engaged in freighting between the railway and the centres of trade and population on the North Saskatchewan, and in this way I met and travelled with a great many of them along the trails, besides which I obtained much valuable information from the missionaries of all denominations and from leading merchants and farmers in the Territories. The route of travel took me through Qu'Appelle, the settlements on the south branch of the Saskatchewan, Prince Albert and its vicinity, Duck Lake, the south bank of the Saskatchewan from the Elbow to Battleford, and thence to Swift Current. From Swift Current I went to Calgary by rail, and from Calgary north to Edmonton and St. Albert, I learned that while in some cases the Half-breeds have made successful efforts to gain a livelihood by the cultivation of the soil, the great majority (especially of those of French origin) although claiming tracts of land as homesteads in various parts of the Territories by virtue of actual occupation, continue to live a more or less roaming life, and to look to trading and freighting as their chief means of support. Those who have devoted themselves solely to farming are at present, and are likely to continue to be in the future, self-supporting; but those who only cultivate small patches of land and with their families are absent from their holdings during the greater part of the year trading and freighting, were merely earning a bare living, with the prospect that during the winter many of them would be in straitened circumstances. The soil had been rather unskilfully prepared for the little crop which they had put in the ground, and in many instances, owing to the abnormal drought of the summer, they received no return whatever, while the average crop all over was poor, especially potatoes.

A great majority of the Half-breeds were then, as already stated, engaged in freighting. For this business in the Prince Albert district their services were in increased demand on account of the lowness of the water in the Saskatchewan and the consequent failure of the Hudson's Bay Company's boats to make their usual trips, the effect of which was to necessitate transport overland for a large portion of the distance between Lake Winnipeg and Prince Albert of what would otherwise have reached that point by water, and to produce an increase in the quantity of goods imported by way of the railway via Qu'Appelle station. The distance from Qu'Appelle station to Prince Albert is about 240 miles, and under the most favorable circumstances it would take the ordinary Half-breed team from twelve to fifteen days, barring accidents, to make the journey with a load, and not less than seven days to make the return journey without a load. To this should be added three days for loading and unloading, and waiting at either end of the journey, or from twenty-two to twenty-five days altogether. For this service the freighter received from the Hudson's Bay Company and other importers remuneration at the rate of \$1.00 per cwt. if he was paid in cash, \$1.25 per cwt. if he was paid half cash and half "in trade," or \$1.50 per cwt. if the whole account was settled "in trade." It will readily be understood that this left practically no margin for profit, but simply furnished the means of subsistence for the freighter and his family during the time the work lasted, leaving nothing to lay by for the winter, nor with which, if a horse died or a cart were disabled, the loss could be made good.

The reports received through the North-West Mounted Police officers from time to time during the winter show that there has been some actual destitution amongst these people which, in every instance, has been relieved as seemed most fitting under the circumstances; but I have no doubt, from what I saw and heard, and in view of the severity of the winter weather, that there must also have been a good deal of real hardship of which we have not heard. Before next winter a line of railway will have been completed and running from Regina to Prince Albert—another of the few remaining sources of making a living will have been taken away from the Half-breed population, and there will thereafter be left to them in this line of business only the freighting from Saskatoon to Battleford, from Calgary to Edmonton, and from Edmonton, Battleford and Prince Albert to the northern country. I was careful to ask the missionaries of all denominations, and other people intimately acquainted with the habits and inclinations of the Half-breeds, what they supposed would become of them when there was no longer any considerable amount of freighting to be done, and the conclusion to which I was driven was that the problem is one which nobody who has earnestly considered the subject sees any means of solving satisfactorily. No doubt, said some, a large number of them will turn to farming; but in this occupation it is to be feared, judging from their history and training, that those who have been brought up as freighters or traders would not, during the present generation at least, be very successful. Neither would the existing generation, as a rule, make satisfactory laborers or domestic servants. They are not accustomed to the subjection and control to which they would have to submit in those capacities, and experience has proved that they do not take kindly to such employment.

Among the Half-breeds themselves, and the majority of the white people, there is an almost unanimous opinion that the Government should come to their relief by granting scrip, as recommended by the North-West Legislative Assembly, to all the Half-breed children born in the country between 1870, the date of the transfer, and 1885, when the Government commenced to enquire into and deal with the claims of the Half-breeds as a special class of the community. It may be desirable in this relation to state that the Half-breeds of Manitoba and the Half-breeds of the North-West Territories have had their claims, as the descendants of the Indians, dealt with on precisely the same basis—that is to say, all heads of families living at the time of the transfer have received \$160 in scrip, and all the Half-breed children born and living at the same date either 240 acres of land or \$240 in scrip.

Except the Rev. Father Fourmond, the Roman Catholic priest in charge of the mission at St. Laurent, I found the missionaries of all churches unanimously opposed to this proposition. The Half-breeds, as a class, they say, have no adequate conception of the real value of money. Any sum given them in hand would be sure to be dissipated in a short time for not very economical, and in some cases even harmful purposes; and it would appear that the temporary possession of a large amount of cash or what can readily be converted into cash has a tendency to make them more discontented with their condition and more unwilling than ever to settle down to hard work. The scrip distributed as the result of the work of the Commission of 1885-6-7, while in many cases effective in assisting industrious and economical Half-breeds to buy stock and implements, left the great majority of the recipients poorer than

before. In a few months the scrip had passed into other hands, and little or nothing remained to show for it. I am informed that the Half-breeds are largely indebted to the white traders, and if this be the case it would doubtless account to a very considerable extent for the unanimity of the white people in demanding a new distribution of scrip; for the Half-breeds as a class are disposed to meet their obligations when they have the means. Looking at this matter in the light of the facts related, and bearing in mind the views entertained by the disinterested friends of the Half-breeds (I refer, of course, chiefly in this relation, to the missionaries), it is more difficult to understand how the demand should have received the approval of the North-West Assembly, containing as that body does some gentlemen having long experience and intimate knowledge of the North-West, and the history and characteristics of the Half-breed population.

On certificates granted by the Half-breed Commission of 1885-6-7 scrip was issued to 854 heads of families, the representatives of 264 deceased heads of families, 1,862 children and the representatives of 466 children, born in the Territories before the 15th July, 1870, but who have died since that date. The whole amount of scrip issued represented 61,020 acres of land and \$663,474 in money scrip redeemable in land. These figures, it may be added, include 1,292 persons who were formerly treaty Half-breeds. According to the census of 1885 there were in the Territories at that date 4,848 Half-breeds; and assuming that one-tenth of these, or about 500 in all, are Manitoba Half-breeds and their descendants, who would not be entitled to share in the distribution now asked for, and deducting the number of heads of families and children to whom scrip was issued by the Commission (but adding the descendants of the 1,292 persons who were upon the Indian Treaty rolls at the time of the census and have since taken Half-breed scrip, as stated—whose numbers I have put down at probably not less than 2,000) there would remain about 5,000 persons who would be entitled to \$240 each in scrip. This calculation is, of course, a pure approximation, for to ascertain the true figures would involve a long enquiry and the application of means which I have not at my command; but I think it is likely that the results of such an investigation would be found to be pretty nearly as I have calculated. To accede to the demand which has been made by the Half-breeds, supported by the North-West Legislative Assembly, would therefore mean a further distribution of at least \$1,200,000 of scrip. This is a large amount of money, and even if its payment were to finally and satisfactorily solve the Half-breed question, there might be some hesitation about paying so large an amount to so limited a number of people upon the grounds set forth in the request. But I have met no one so far who has alleged that the relief would be otherwise than temporary, or that the need for further relief would not arise at a very early day; and it is therefore difficult to see how, on grounds of equity and good public policy, a step of the kind could be justified.

My own view, which is submitted with much deference when I remember the opportunities which you and others who have lived so long in the North-West must have had of studying this question on the ground, is that the Government should immediately answer the petitions of these people in decisive language, and that answer should be that so many of the Half-breeds as are desirous of continuing to exercise the privileges of citizenship must also accept its full responsibilities, including the support of themselves and their families independent of assistance from

the Government of Canada, and that the remainder should be dealt with as wards of the Government. They are a proud spirited people, and it is doubtful whether many of them would be willing to assume that relation; but the experiment might be worth trying. The misfortune is that some of those who profess to be their friends encourage them to look for Government assistance as a matter of right, without making it plain to them that the granting of relief in this form, or for that matter the mere asking for it, involves a distinction between them and their fellow-citizens which entails no small sacrifice of independence and self-respect.

I take this opportunity of acknowledging the frankness with which the various missionaries disclosed to me their views respecting the situation, and their equal frankness in stating that they saw no way in which the Half-breed question—assuming that the Half-breeds are to be dealt with differently from the rest of the people of this country—can be settled upon a satisfactory and permanent basis, which does not involve some form of tutelage for those who are unable to provide for themselves.

ORDNANCE LANDS.

The revenue from Ordnance and Admiralty lands for the financial year shows an improvement over the previous corresponding period. This does not include the proceeds of a very successful sale of part of the Logan property, in the city of Montreal, which was held in the last days of June, too late to be included in the current year's transactions.

I have the honour to be, Sir,

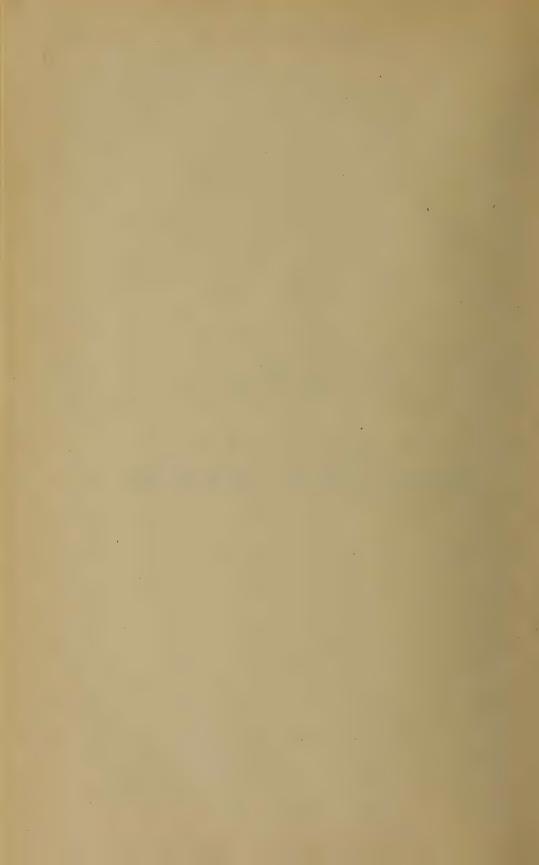
Your obedient servant,

A. M. BURGESS,

Deputy of the Minister of the Interior.

PART I.

DOMINION LANDS.



No. 1.

REPORT OF THE COMMISSIONER OF DOMINION LANDS.

OFFICE OF THE DOMINION LANDS COMMISSION,
WINNIPEG, 1st November, 1889.

To the Hon. Edgar Dewdney, Minister of the Interior, Ottawa.

SIR,—I have the honor to submit for your information the following report respecting the work of my own office and the offices under my control, for the Departmental year ending the 31st October, 1889, and concerning certain North-West matters of interest to the Department,

I beg also to enclose the annual reports of Messrs. Pearce (Superintendent of Mines), Gordon (Inspector of Dominion Lands Agencies), and Aikman (Dominion Lands Agent at New Westminster), members of the Land Board, and that of Mr. E. F. Stephenson, the Crown Timber Agent at Winnipeg.

WORK PERFORMED, REVENUE OBTAINED, AND COST OF MANAGEMENT.

Commissioner's Office.

The following is a résumé of such of the work performed during the year in my own office as can be presented in a tabulated form:—

Correspondence Branch. Letters received-2,047 2.850 December..... January..... 3.238 February..... 2.194 2,783 March..... April...... 3,099 May..... June..... 3,764 July..... 3.470 August..... 3,195 September..... 2,801 October..... 3,223 Letters sent-November..... 2,182 December...... 2,165 January...... 4,086 February..... 2,414 2,704 March..... April..... 3,089 3,553 May..... June..... 3,485 14-13*

upara.	
July	3,089 2,412 2,506
TO:	
Cancellation Branch.	1,079
do refused	. 98
do cases pending	183
Total	. 1,360
Patents Branch.	
Applications for patent approved	1,730

In addition to this a considerable number of Manitoba Act cases have been investigated and decided; the Accountant's branch has been busily occupied; and a large amount of work has been done in connection with matters which I will hereafter more particularly refer to, such as school lands, the Crofter settlements, the collection of seed grain advances, the supervision of the Intelligence service, &c.

The cost of the office during the year has been: salaries, \$22,464.11; contingent

expenses, \$1,856.96.

I would invite your attention to the following table, comparing the work performed by this office (so far as it can be tabulated) and the cost of management for the past year with each previous year of its existence:—

Э.

	and se.	Decrease, Amount.	cts.	:	:	:	:	:	5 71	:	5 99
CONTINGENCIES, ANNUAL.	Increase and Decrease.	.tnuomA	cts.	:	<u>:</u> :	:	:	1 01	545		415
ANNUAL.	In	Increase,	cts.	<u>:</u>	:	:	92	93 631		95 33	96
S		Amount	€	:	:		2,155	2,786	2,241	2,274	1,858
AL.	se.	Per cent.		:	:	:	11	15	(0)	H	52
s, Annu	Increase,	Amount.	\$ cts.	:		-	69 1,876 69	2,730 89	78 60	220 27	1,177 66
SALARIES, ANNUAL.		Amount.	& cts.		12,349 20	16,380 00	18,256 69	20,987 58	21,066 18	21,286 45	22,464 11 1,177 66
m 0	sase.	Per cent.		:	:	:	:	:	54	i	:
APPLICATIONS FOR HOMESTEAD. PATENT APPROVED.	Increase. Decrease.	.oV		:	:	:	:		1,616		
HOMESTEAD.	sase.	Per cent.		:	:	240	32	55	:	20	ŭ
PPLIC	Incre	.oV				1,024	471	1,064	:	278	85.
A P,		No.		:	424	1,448 1,024	8 1,919	25 2,983 1,064	33 1,367	1,645	1,730
× .	De- crease.	Per cent.		:	:	:				:	:
ATION OUT		.oV		:	<u>:</u>	250	. 115	. 319	. 308		11
CARRIED OUT.	In- crease.	No. Per cent.	1	<u>:</u> :	. :		<u>:</u> :	<u>:</u> :	<u>:</u> :		
CAI		No.		335	389	1,358 969	1,243	924	616	926 360	1,079 103
	e- use.	Per cent.		:	:	-	3	:	:	:	
	De- crease	.oV		:	:	:	400	:	:	:	:
OUT.	Se.	Per cent.		:		73		48	42	27.	$10\frac{1}{3}$
LETTERS SENT OUT.	Increase.	.oV		:	:	6,224	:	6,821	8,780	6,276	3,316 increase
LET		No.		1,752	8,449	14,673	14,273	21,094	29,874	$\left\{\begin{matrix} \text{Letters} \\ 32,100 \\ \text{Post cards} \\ 4,050 \end{matrix}\right\}$	35,416
70.0	ease.	Рег сепt.		:	:	110	ಕಾ	32	15	19	6
LETTERS RECEIVED.	Increase.	.oV		:	:	9,413	555	5,997	3,608	5,213	2,980
REC		No.		1,546	8,523	17,936 9,413	18,491	24,488 5,997	28,096 3,608	33,309 5,213	36,289
'uv	TYI XE	Берактие и		1882	(8 months) 1882-3	TRT 1883-4.	[I 1884-5	1885-6	1886-7	1887-8	1888-9 36,289 2,980

During the past year, it will be observed, the work in each branch has considerably increased over that performed in the previous year, while the excess in the cost of management is slight. It will be noticed, too, that there has been a continual and rapid increase in the business transacted by the office since its inception, while the increase in the cost has been comparatively small. While since the first complete year of the office's operation (1882-3) the annual work has more than quadrupled, the annual expense is not quite double what it then was.

It gives me much pleasure to refer to the cheerful and efficient manner in which their duties have been performed by the members of my staff. In order to keep pace with the increase of work it has been frequently necessary for many of them to work overtime, and the observance of a number of statutory holidays has been

discontinued.

Dominion Lands Agencies.

A detailed account of the work and expenses of the Dominion Lands Agencies will be found in Mr. Inspector Gordon's report. I may say, however, that the work has been heavier, the revenue greater and the expense lighter during the past year than in 1888. The increase in the number of homestead entries is very gratifying, 4,416 having been granted last year, as compared with 2,655 the previous year. This, I may point out, is the largest number of homesteads granted in any year in the Department's history, with the exception of the boom years of 1882 and 1883. In those two years, however, a considerable number of the entries were speculative, whereas I believe those granted during the year just closed have been granted to bona fide agriculturists. There has also been a very noticeable increase in preemption entries, their number being 1,355, as compared with 454 in 1888. number of general sales is, too, appreciably in excess of those made in 1888. emption sales, however, show a decrease as compared with the previous year, which is accounted for by the fact that while in 1888 a special effort was made by the Department to collect overdue payments of this class, no such efforts were made last year, protection to those desiring it having been freely accorded. The expenditure this year in connection with agencies has been \$48,747.74\frac{1}{2}, as compared with \$49,345.61 in 1888, a saving of \$597.86\frac{1}{2}, while the revenue derived through them has been \$432,114.99, as compared with \$420,110.53 the previous year, an increase of \$12,004.46. The comparison regarding revenue will appear more favorable when it is borne in mind that the pressure put upon pre-emptors in 1888 was relaxed last year, and that the revenue in 1888 was augmented considerably by the efforts made to collect payments in arrears on Calgary town lot sales. The foregoing figures as to revenue include both cash and scrip payments. I desire, by the way, to protest against the practice of giving the Department credit for only the cash received. The scrip outstanding represents a liability on the part of the Government, which, when it receives scrip in payment of lands, this Department discharges, and for directly discharging that liability it is just as much entitled to credit as for such cash received as may be applied indirectly to discharge other liabilities. It would be as reasonable to refuse to credit the Department with any payments made in Dominion Government bills as it is to object to its taking credit for payments made in Dominion Government scrip notes.

During the year the agency at the Rocky Mountains Park has been abolished, and the work formerly done in connection with it has been added to the duties of the Superintendent of the Park. The agency at Manitou has also been closed, in consequence of the greater part of the lands in that district having been entered for, and the district is now incorporated into that of Winnipeg. The officials formerly employed at these two agencies have been removed to other offices, where the work was so pressing as to necessitate extra assistance, and an increase in the staff which would otherwise have been inevitable has thus been obviated. I trust that as settlement progresses it may be possible to close up other agencies in the well occupied parts of the country, so as to provide accommodation for the newer districts without

increasing the cost of the service.

Homestead Inspection Service.

The number of applications for patent and cancellation having been larger, the work of the Homestead Inspection Service has been consequently heavier than in the previous year. The following is a statement of its year's work.

Inspector.	No. of Inspections made.	No. of Applications for Patent taken.	No. of Miles travelled.
Thos. H. Aikman John Allison W. H. Allison J. J. Arsenault R. S. Park John Rogers Thomas Swan W. R. Gunn (temporarily employed) Homestead inspections made by Forest Rangers and Intelligence Officers	340 487 540 691 516 499 545 20	111 159 194 223 249 108 117	4,268 5,321 4,994 4,432 4,231 5,237 4,056
Total	3,993	1,160	32,539

The number of inspections made the previous year was 3,898, an increase this year of 95, or at the rate of $2\frac{1}{2}$ per cent. The cost of the service has been: salaries, \$8,794; travelling expenses, \$5,675; a total of \$14,469. The cost in 1888 was: salaries, \$8,521.71; travelling expenses, \$7,799; total, \$16,320.71 which shows a saving effected of \$1,851.71. The benefits resulting to the Department, the settlers and the country generally from this service are very great. It protects the Department against fraudulent applications for patent, because, before an application for patent is considered, a Homestead Inspector is sent to examine the land and ascertain by personal enquiry whether the applicant has complied with the law. It is a great convenience to the settler, as it enables him to make application for patent in his own house, without travelling with his witnesses to the local agency, probably a long and expensive journey; and it protects him from having his claim "jumped" by malicious or unscrupulous individuals, as a cancellation case is never decided without a report having been obtained from an Inspector, who enquires fully into all the circumstances; it contributes to the improvement of the condition of the country at large by rendering impossible speculative homesteading, as the Inspectors report absentee homesteaders, which leads to the cancellation of their entries and the opening of their lands to bona fide and profitable settlers; and the knowledge that such officials are continually travelling through the country causes the settlers to reside on their lands more than they otherwise would. I am pleased to say that while productive of so much good, the service is practically self-supporting. In order to meet its cost the Department imposes a fee of \$10 on each cancelled quarter section upon re-entry for it being granted, in addition to the ordinary entry fees. This is in no way a hardship to the entrant, as the cancelled lands are usually in well settled districts, and are consequently more valuable than others. From this source a revenue of \$23,192 was derived during the year just closed; the total expense of the inspection service during the same period having been \$14,469. The revenue during the past twelve months from this source is considerably larger than in any previous year (which is in consequence of the great increase in the number of homesteads this year, to which I have before referred) and these fees cannot all be credited to the service's operations last year, some of the lands having been vacant for perhaps two or three years. A fairer comparison will be obtained by averaging the cost of the service for a series of years and the revenue derived from it during the same

period. The following is a statement of the expenses of the service and the revenue from inspection fees in each complete year of my tenure of office:—

		Revenue derived			
Year.	Salaries.	Travelling Expenses.	Total.	from Inspection Fees. \$ cts.	
	\$ ets.	\$ cts.	\$ cts.		
1886	7,200 00	4,886 00	12,086 00	6,540 00	
1887	7,200 00	5,737 00	12,937 00	7,710 00	
1888	8,521 71	7,799 00	16,320 71	13,615 00	
1889	8,794 00	5,675 00	14,469 00	23,192 00	
Totals	31,715 71	24,097 00	55,812 71	51,057 00	

During the period in question, you will notice, the cost of the service has been almost entirely met from these fees, the excess of expenditure being \$4,755.71, or an average of only \$1,188.93 a year. During the same time \$11,361 has been realized from forfeited improvements on cancelled lands, which, though it perhaps cannot properly be put to the credit of the Inspection Service, is in a great measure the result of its work. In order that the service might not be in any way a burden on the public exchequer I recommended during the summer that a fee of \$2.50 should be charged for each application for patent taken before a Homestead Inspector, of which recommendation you approved. This system has been in force since about the 1st of September, and up to the present \$525 has been realized from these fees. The Inspection Service will hereafter, I think, be quite self-supporting. The fee in question has been paid willingly by the settlers, and when the convenience of making their application before an Inspector instead of having to go to the local agency for this purpose—as was necessary before Inspectors were authorized to take applications for patent—is taken into consideration, the imposition of this small sum seems perfectly reasonable.

Making application for patent before an Inspector is optional, however, and any settler who may object to paying the fee has the alternative of going before the local Agent, who will receive the application free. But no matter how near an agency a settler may reside, the cost of his going there with his witnesses is not likely in any case to be less than \$2.50.

Management of Trust and other Funds.

Trust Account.—An account is kept with the Merchants Bank, Winnipeg, in which are deposited the bond fees which are required to be deposited by persons who make application for cancellation of existing entries. Improvements paid for benefit of the former homesteader, when re-entry is granted for cancelled land, are also deposited in this account.

The balance on hand is \$19,309.18, and the interest earned on the balance of the account during the year is \$472.45, which has been deposited to credit of the Receiver-

General

The receipts during the year number 1,615, amounting to \$38,510.32, and the

cheques issued for the same period number 1,193, amounting to \$28,827.62.

Letter of Credit Account.—The Letter of Credit Account, from which is defrayed the expenditure on account of Contingencies, Special Service, Intelligence and Land Guide Service, and Homestead Inspection Account, is kept with the Bank of Montreal, Ottawa, and 330 cheques have been issued thereon.

Seed Grain Repayments.

During the year just closed \$9,121.77 has been received in repayment of the seed grain advanced in the spring of 1887 to settlers in Assiniboia and on the North Branch of the Saskatchewan, making the total repayments up to the present date \$29,835.80. The 5,000 bushels of barley and oats which I referred to in my last report as being on hand at Prince Albert has been disposed of, the barley having been purchased by the Hudson's Bay Company, and the oats by the North-West Mounted Police.

In December last the collection of the mortgages given by the Red River settlers for seed grain relief supplied by the Government at the time of the grass-hopper visitation in 1876, was imposed upon this office by the Department of Agriculture, and \$3,231.85 has been paid in since the matter has been under my control. In consequence of the length of time these mortgages have been in existence, and the fact that the properties affected by them have, in most cases, changed hands frequently, this work is of a very difficult and complicated nature, and has occupied a considerable amount of time.

Manitoba University Lands.

The selection of the land grant of 150,000 acres to which the University of Manitoba is entitled under section 2 of the Act 48-49 Vic., chap. 50, has been vigorously prosecuted during the year. As mentioned in my last annual report, about 250,000 acres of land were temporarily reserved, from which the University might make choice, subject to your approval, of the quantity to which it is entitled. The lands reserved have been examined by inspectors employed by the University, which has periodically furnished this office with lists of such as have been chosen. As such lists have been received, I have recommended the transfer to that body of the lands included therein. Up the present time 123,541.43 acres have been so recommended. The whole selection will shortly be completed. It has not been found practicable to restrict the University to not more than two sections in any township in every instance, as was proposed when the selection was commenced, but this arrangement has been adhered to as far as possible. Care has been exercised that too large a block should not be granted in any district, and every precaution to prevent the selection interfering with settlement has been taken.

Crofter Settlement.

A great deal of my time and attention has been occupied this year in connection with the settlement of the Crofters assisted to the North-West by the British Government's Colonization Board. At the request of the Imperial authorities and in accordance with your own desire I have supervised this year's settlement, and have given advice and assistance to the Colonization Board's agent. This has involved a considerable amount of trouble in the purchasing of supplies, in selecting a location for the settlers, and in arranging in other ways for their reception. I have had to countersign all cheques issued by the Board's officer, and to approve all orders given by him; a large correspondence on the subject has had to be conducted, and some

travelling has been necessitated.

On the 3rd of April 49 Crofter families sailed from Glasgow. They reached Halifax (where they were met by an officer of the Department of Agriculture) on the 14th, and arrived in Winnipeg on the 20th, proceeding on the same day to Saltcoats, the terminus of the Manitoba and North-Western Railway, in the vicinity of which lands had been reserved for them. Preparation was originally made to locate the settlement in the neighborhood of Grenfell and Wolseley, on the line of the Canadian Pacific Railway, but upon its being discovered that pre-emptions had been promised the settlers before leaving Scotland it was found that there were not enough lands in that district to give them all pre-emptions and allow them to be settled within a reasonable distance of the railway, and in such a manner that the settlement could be conveniently supervised by the agent, who, in accordance with my recommendation, was appointed by the Colonization Board to reside among them

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and furnish them with advice and practical assistance in farming matters. A change in the location had, therefore, at the last moment, to be made; for, although I did not think pre-emptions at all necessary to the settlers—as they will have quite enough to do to repay their advances without paying for pre-emptions—I considered it best, to avoid the possibility of complaint that promises had been broken, that they should have an opportunity of taking 320 acres each if they desired. The lands reserved were visited before the arrival of the Crofters by Sir Charles Tupper, a member of the Colonization Board, who approved of their quality and situation. They are well adapted for mixed farming, and are close to a railway and local market. The Colonization Board's agent was instructed to see that the settlers put as much land as possible under crop, obtained a sufficient supply of hay to carry their cattle through the winter, and erected their houses and put them in such a condition as to withstand the cold weather. I regret to say that owing to the dry season and, to some extent, to the dilatoriness of the people in breaking and seeding, the crops have not been very successful. Every effort has been used to procure employment for all those who can be spared from the settlement, and I trust that sufficient will be earned to carry the people through the winter without hardship. The settlement has since its establishment been visited by Mr. Colmer, the Colonization Board's secretary, who has expressed satisfaction with the measures taken by this Department to promote its success. There is no reason, I think, why the settlers should not, in a year or two, become fairly prosperous, if they exercise reasonable industry and prudence. I may say, though, that the amount the Act allows to be advanced to each homesteader—\$600—is hardly sufficient to start in a satisfactory manner a man with a large family, who has absolutely no means of his own to supplement it, especially when, in addition to that of his own family, the passage money of a relative or ward has to be paid therefrom. I also consider that it would greatly increase the chances of success of any future parties the Colonization Board may send out if the lands for them were selected a year in advance of their arrival, and a certain quantity of each homestead broken, so that the settlers might be in a position to obtain some substantial return from their lands the first year of their residence in the country.

In regard to the settlement established near Killarney in 1888, I may say that the people managed to pass last winter satisfactorily, no cases of severe hardship having occurred. In company with Mr. Searth, M.P., I visited the settlement in January and arranged with the storekeepers in the neighborhood to give the people credit in cases where such was absolutely necessary. The crops of some of these settlers have been poor, but I am informed they are equal to the crops of older and more experienced settlers in the same district. It is reported to me that the heads of families are all in residence and at work on their homesteads; the unmarried settlers and the junior members of families who are able to work being nearly all

away from the sttlement earning wages.

School Lands.

There have been no large sales of School Lands during the past year, but what lands have been disposed of have been sold to advantage. There have been three sales in Manitoba. In December last Section 11, Township 10, Range 19 west, in close proximity to the town site of Brandon, was offered at auction; 293.16 acres were disposed of, part in villa lots and the remainder in a block of 160 acres. The total price realized was \$7,238.34, an average of \$24.70 an acre. In the same month the School Section at Rapid City (29-13-19 west) was put up for sale, the north half by quarter sections and the south half in 147 town lots. The north east quarter was sold for \$1,326, i.e., at \$8.50 an acre, and 55 town lots were bought for \$2,598, an average price of \$47.23 per lot. In June last, 20 acres of Section 11, Township 15, Range 18 west, near Minnedosa, were sold for \$400, or at \$20 an acre. In the North-West Territories the sales and the prices realized have been as follows:—

515.92 acres of Section 11, Township 14, Range 1 west of 5th Meridian, near Calgary, were sold for \$8,265.36, or about \$16.02 per acre; and that part of the south east quarter of Section 11, Township 22, Range 29 west of the 4th Meridian,

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south of Bow River, containing 63.80 acres, was sold for \$414.70, or \$6.50 per acre.

These sales were made by auction at Calgary in July last.

A large number of applications for the purchase of School Lands have been filed, and the advisability of holding further sales this winter is now being considered. During the past year a system of examination of School Lands has been inaugurated, which, I believe, will prove very helpful to the Department in dealing with them. Previously, there was no very satisfactory means of ascertaining the character, quality and value of the lands, and consequently some difficulty was experienced in deciding whether or not it would be in the interest of the education fund to offer them for sale, and in placing an upset price on them when a sale had been determined upon. Now, when any enquiry is made respecting any School Section, or any portion thereof, the land in question is placed on a list and is, as soon as possible, visited and reported upon by an Inspector. His report contains a full description of the property and all information necessary to enable the Department to correctly appraise its value and to decide whether it is advisable to offer it at the next sale. One regular Inspector has been employed in this work; but, in order to complete, before the inspection season expires, the examination of all lands respecting which applications have been received, two Forest Rangers have been detailed to temporarily assist him. The number of reports received from these examiners up to the present in 922. It is intended to have all the sections in the settled part of the country inspected in this manner. The system at present applies only to Manitoba; it will be extended to the North-West Territories as soon as the lands there come into demand.

The Inspector's reports show that squatting on and cultivation of School Lands are still being carried on very extensively, though the public is now well aware that these are illegal practices. The offenders, relying on the fact that in the past lands have been sold subject to payment for improvements, hope that consideration will be shown them when the lands are disposed of. I would recommend that School Lands be sold in future entirely irrespective of any "improvements" on them. Most of the School Lands thus taken possession of are near centres of population, and a very large number of those illegally cultivating them do not live on them, but reside in towns or villages or on neighboring farms. If the land they get the free use of belonged to private owners they would have to pay rent for it, in many cases quite a heavy rent, and they would also have to pay municipal taxes, which they now avoid, as taxes cannot be levied on undisposed of School Lands, and consequently the municipalities are deprived of revenue that they would otherwise receive. The "improvements" detract from the value of the land rather than enhance it. cultivation in many instances is done in such a manner as to take everything possible from the soil without making any return to it; and, if after cultivation for some time the cultivator ceases to use it, the land grows up with weeds and becomes of much less value than the virgin prairie. It has been found, too, that the squatters combine at the sales to prevent the lands being sold, either by threatening to run up the price, by exaggerating to the intended purchaser the amount of improvements on the land and their value, or by boasting of the trouble they will put a purchaser to before they will let him obtain possession. Not only do I, therefore, recommend that "improvements" be not recognized, but I am also of opinion that proceedings should be taken against those who are found by the Inspector to be pursuing these illegal practices. I may point out that in the Nebraska school law there is the following provision: "If any person shall commit, waste or trespass or other injury upon any of the lands herein referred to (School Lands) the person so offending shall, on conviction thereof, be fined a sum not less than twenty-five dollars nor exceeding one thousand dollars."

The area of surveyed School Lands in Manitoba is 897,563 acres; and the estimated area of those unsurveyed is 1,000,000 acres—making a total area of about 1,897,563 acres. Up to the present 21,717 acres have been sold (exclusive of the Rapid City town lots), the sum realized being \$158,620, or an average price of nearly \$7.30 an acre. The surveyed School Land area in the Territories is 2,890,469 38 acres. Of

the unsurveyed area there, it is impossible to make anything like an accurate estimate. The quantity sold is 1829.88 acres, and the total amount realized \$46,541.97, an average price of \$25.43 an acre. The high average price realized is, I think, an evidence that the Dominion Government is faithfully administering the trust it imposed upon itself when it reserved lands in Manitoba and the North-West Territories for educational purposes. Appended to this report is a memorandum containing all the particulars I have been able to obtain respecting the management of School Lands in the United States, and the results achieved by the various State Governments. From this it will be seen that the prices realized in Manitoba and the North-West are much larger than those at which School Lands are sold by a great majority of the State Governments. In a large number of States very poor results have been accomplished; the lands having apparently been given away for a mere trifle. It has been urged that the School Lands in Manitoba should be administered by the Provincial Government. The average results of local administration in the States are not, however, so brilliant as to warrant the supposition that a change to that system in Manitoba would prove advantageous to the interests of education; on the contrary, they indicate that a change from the present mode of administration in that direction would probably be detrimental to those interests.

Pre-emptions.

The privilege of taking pre-emptions adjacent to their homesteads, when making entry for the latter, was first accorded to settlers in 1874. The Land Act of 1883 provided that this privilege should be discontinued after the 1st of January, 1885. In 1886 the Act was amended in this particular, extending the time within which pre-emptions might be obtained to January, 1887, and by the amendments of 1886 this privilege was further extended till the 1st January, 1890. There has been no subsequent legislation in this regard, and pre-emption entries will not therefore be

granted after the end of this calendar year.

There is no doubt that the pre-emption system served a good purpose at the time it was introduced. At that date all the public lands, whether odd or even numbered sections, were open to homestead entry, so that if a man were not in a position to purchase extra land when entering for his homestead, it was altogether likely all the land which was desirable in his neighborhood would be settled on by other homesteaders before he would have earned enough to buy any, and he would thus be prevented from making provision for the cultivation of more than 160 acres should he ever be in a position to so extensively engage in agricultural operations, or from acquiring land near his own for the use of his children. Some provision in the regulations which would give a settler the right to purchase within a certain period from date of settlement an additional quantity of land adjacent to his homestead at a reasonable price was, therefore, desirable and necessary. But the need for such a provision is not now so great, as, every alternate section being reserved from homesteading, the settler desiring to increase the area of his farm can generally buy land near his homestead on easy terms of payment, either from the Government or from the railway companies to whom odd sections have been granted as subsidy. Though in some ways it has been advantageous, there have been several objectionable features in connection with the pre-emption system. One is, that it has served to scatter settlement. Many settlers, with little prospect at the time of making homestead entry of being able in three years to purchase an additional 160 acres, have taken pre-emption entries on the chance either that they may be able to pay for them eventually, or that, in consequence of the construction of railways or the increase of settlement in their neighborhood, they may be able to dispose of their right to others, when they have obtained homestead patent, to good advantage. The entry fee is but ten dollars, which is not much loss if the pre-emption has to be given up, but may result in a good return if the speculation is successful. In the mean time, the pre-emption quarter section is locked up and lying useless, and settlers who, if it were vacant, would gladly homestead it, are forced into districts more remote from railways and settlements, while the localities in which the specu-12

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lative pre-emptions are held are sustaining nothing like their full complement of population. Another objection is this: A settler having taken up a pre-emption is perhaps not able to pay for it when the necessity for doing so arrives, but at the same time, hoping he will shortly be able to do so, does not care to relinquish it. In many cases he mortgages his homestead after having got his patent, in order to help pay for his pre-emption. He thus burdens himself with debt in order to pay for land which, in a large number of instances, he is not cultivating, and which is of very little practical use to him. Sometimes he can manage to extricate himself from the liabilities he thus assumes, but it unfortunately only too often happens that he sinks under their pressure and, in the end, loses both homestead and pre-emption. I am glad to notice, however, that the settlers themselves are realizing that it is not advisable to take up too much land at first, and that it is better to rely upon purchasing odd numbered sections at some future date, if a larger farm is then found to be required, than to encumber themselves with pre-emptions before they really require or can afford them. This is shown by the gradual falling off during recent years in the number of pre-emption entries granted as compared with the homsteads taken up. In 1882, 76 per cent. of those homesteading entered also for pre-emptions; in 1883, 68 per cent. of the homesteaders pre-empted; in 1884, 73 per cent.; in 1885, 35 per cent.; in 1886, 39 per cent.; in 1887, 28 per cent.; in 1888, 17 per cent. In the year just closed 30 per cent. of the homesteaders took pre-emptions, the increase over the previous year being doubtless accounted for by the fact that the time for withdrawal of the pre-emption privilege is so close at hand, and perhaps because there may have been a larger number of well-to-do settlers among last season's immigrants than in the former year.

In view of this decreased demand, I do not think that the abolition of the preemption system will be a matter of much, if any, regret. In order, however, that those homesteaders who really require and can afford to farm more than 160 acres may not by chance be deprived of the opportunity of doing so, and that the Government may not entirely lose the revenue which has hitherto been derived from preemption sales, I would suggest the advisability of allowing a homesteader to purchase land adjacent to his homestead when entering for it, payable one-fourth in cash and the balance in three annual instalments, with interest on the unpaid principal at 6 per cent. A settler would not be likely to take up land on these terms for speculative purposes, as the first cash payment and the annual interest would be more than he could afford to lose if the speculation should be a failure. These sales, I think, would only be taken advantage of by farmers really needing the land, with some capital at their disposal when homesteading, and having a fair prospect of completing their purchases. A large quantity of land in the hands of such settlers would be in no way a disadvantage, but a positive benefit in many respects to the country. As mentioned in my last annual report, a circular was sent out in 1888, calling

As mentioned in my last annual report, a circular was sent out in 1888, calling upon persons in default in the payment of their pre-emptions to complete their purchases within a given period or their entries would be cancelled, unless they furnished within the period allowed satisfactory reasons for non-payment, and showed that they were residing on and cultivating their homesteads in a bona fide manner, in which cases a reasonable extension would be granted; the object of this circular being to open to homestead settlement, under sub-clause 5, clause 38, of the Dominion Lands Act, all pre-emptions which were being held by speculative homesteaders, with no benefit to the holders and with great detriment to the country. At a conference held in Ottawa, in February, between yourself and the Senators and Members of Parliament from Manitoba and the North-West Territories, and at which the Deputy Minister and myself were present, it was represented that many bona fide settlers whose entries it would be a great hardship to cancel had failed to make application for extension of time for their pre-emption payments. In consequence of these representations you authorized the issue of instructions to the local Agents ordering them to discontinue the cancellation of pre-emption entries until the 1st of January next, except upon applications from intending settlers who wished to enter for pre-emptions as homesteads under sub-clause 5, clause 38, of the Dominion Lands

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Act. The number of pre-emption entries cancelled this year has, therefore, been small.

Amendments to the Dominion Lands Act.

The amendments made to the Dominion Lands Act at the last Session of Parliament appear to have worked well. That relating to transfers made before issue of patent has quieted a number of titles, and that relating to liens for advances made to assist immigrants to the North-West and to start them on farms has removed many difficulties in the way of the successful working of this useful plan of colonization.

Crops.

Last season's crops in Manitoba and the North-West Territories were not so successful as might have been wished, owing chiefly to the dry weather which prevailed during the growing period. In Manitoba about a million acres are stated to have been prepared for seeding last spring, a considerably larger acreage than in the previous year, the acreage devoted to the principal crops being as follows: Wheat, 623,245 acres; oats, 218,744 acres; barley, 80,238 acres; flax, 13,333 acres; potatoes, 11,941 acres; other roots, 4,075 acres. Seeding was general throughout the Province about the 1st of April, but the weather was cool, and not favorable to rapid growth. At an early date the ground became very dry and, high winds prevailing, the seed in many places was uncovered, and in some cases blown away. The month of June was particularly dry, the rainfall during it being less than three quarters of an inch throughout the Province. A few showers at the commencement of July remedied the evil to some extent, and caused hopes that the damage would not be so serious as at first anticipated, but experience has shown that in many places the drought had affected the crops too seriously for recovery. The weather during the harvesting season was favorable. It is yet too early to give any reliable statement as to the quantity of the crop. It is estimated by the Provincial Department of Agriculture, from the returns of its crop correspondents, that the average yield per acre for the Province will be as follows: Wheat, 12.4 bushels; oats, 16.8 bushels; barley 13.6 bushels hels; peas, 8.1 bushels; potatoes, 119 bushels. It is difficult to arrive at a general estimate, however, as the crops have varied so in different localities. In the County of Souris River, for instance, the yield per acre is reported as follows: Wheat, 3.9 bushels: oats, 4.2 bushels; barley, 3.2 bushels; potatoes, 62 bushels; while for the County of Westbourne it is given as: Wheat, 23.4 bushels; oats, 22.5 bushels; barley, 24.0 bushels; potatoes, 225 bushels. The crops seen to have done best in the north-western part of the Province and worst in the south-western portion. The average crop yield per acre in the Province for the year 1887, the last year for which statistics were taken, was: Wheat, 27.9 bushels; oats, 46.2 bushels; barley, 36.3 bushels. The average for the period 1883-7 has been: Wheat, 20.6 bushels; oats, 33.7 bushels; barley, 25.8 bushels; potatoes, 205 bushels. If the Local Government figures are correct the aggregate yields of this year's crops are: Wheat, 7,201,519 bushels; oats, 3,415,104 bushels; barley, 1,051,551 bushels; and potatoes, 1,393,385 bushels. Of this, some 5,000,000 bushels of wheat will probably be exported. The quality of the grain this year is excellent, and up to the present the prices paid have been fairly good. The hay crop has been light, the average yield for the Province being reported as 110 tons per

I have no data on which to base an estimate as to the quantity of the crop in the Territories, no statistics having been collected, and the yield having been so different in some localities from what it was in others makes it impossible to give even an approximate idea of the average. On some farms very good results seem to have been attained, while on others indifferent returns have been secured.

In addition to the damage caused by drought, the crops suffered considerably from the ravages of gophers, which were more numerous and troublesome than for some years past. This, however, is indirectly attributable to the drought, as the dry season was particularly favorable to their rapid propagation, and, by depriving 14

them of other succulent food, caused them to rely almost entirely upon the young ears of grain for their subsistence during the early part of the summer. Undoubtedly some steps should be taken for the destruction of this pest before it becomes too formidable; otherwise there is a probability of its developing into as great an evil as the rabbit pest in Australia. This would seem to be a matter for municipal or local government action.

General Condition of the Country.

In spite of the short crops, the condition of the country is satisfactory. Settlers do not appear to have lost confidence; a considerable quantity of new land has been broken, and a larger area than that of last spring will, I have reason to think, be seeded next season. In consequence of cattle and poultry raising and dairying operations being annually more extensively gone into by farmers, the effects of an unfavorable season are not quite so severely felt as formerly, when grain growing used almost entirely to be depended upon. From what I can learn, business is steadily improving, and should the next crop be a bountiful, or even an average one, the progress of the North-West will not be materially hindered by this year's experience. It is to be borne in mind that the drought was not confined to the Canadian North-West, but was general throughout the whole western portion of the continent, and that in regard to crops and the general condition of the people the country north of the 49th parallel compares favorably with that to the south of it.

Railway Construction.

An indication of the confidence felt in the country by capitalists is the extent to which railway construction has been prosecuted during the year, and the preparations which are being made by the various railway companies to undertake even more extensive work in this direction next season. The advantages of this activity to the settlers and the country generally are obvious; the construction work affords employment and causes circulation of capital, and the new lines not only provide greater transport facilities in well occupied neighborhoods, but open new districts to settlement.

The Canadian Pacific Railway Company has had 56 miles graded and $4\frac{1}{2}$ miles of track laid in connection with its Souris Branch, which will run from the neighborhood of Brandon to near Melita, and has built a 6 miles extension of its Barnsley Branch from Barnsley to Carman. A considerable further amount of tracklaying will be done by the company before winter sets in, and work will be energetically proceeded with in the spring.

On the Regina, Long Lake and Saskatchewan Railway, 130 miles have been graded and 40 miles of track laid, the grading being finished to within 9 miles of

Saskatoon.

The North Pacific and Manitoba Railway Company has laid, so far, during the present year, 160 miles of road, and expects to lay 25 more miles this season. The General Manager informs me that although it is not decided what will be done in construction work next year, the company will, in all probability, build 150 miles at least.

The Great North-West Central Railway intends to complete its first 50 miles this season. I am informed the whole of that length is graded, bridges have been built for nearly 40 miles, the first station is nearly completed, and 22 miles of track has been laid. Rolling stock has been shipped from the east, and the company contemplates building next year another 50 miles.

The Manitoba and North-Western Railway has done 15 miles of grading, and, I understand, will probably perform a considerable amount of construction work next

season.

Immigration.

While I have at my disposal no complete and reliable figures as to the number of new settlers that have come to the North-West during the past season, there can

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be no doubt the immigration has been in excess of that of recent years, and that generally speaking the immigrants have been of a very desirable class. The large number of homesteads entered for this year in comparison with previous years is, I think, a good indication in this regard. The "farmers' excursions" organized by the Canadian Pacific Railway Company have been very useful in attracting to this part of the Dominion substantial farmers from the eastern Provinces, who are almost sure to do well for themselves and to benefit the country. Another party of Scotch Crofters has been assisted out here by the British Government, to the settlement of which I have elsewhere referred. There has been a considerable influx of foreigners. The existing foreign colonies have been increased, and a new colony, of Germans, has been established. It is in the neighborhood of Dunmore, and consists of some 170 families; its prospects of success, I am told, are excellent. Several Russian families have been amongst this year's arrivals.

The Mormon colony at Lee's Creek, Alberta, has, I am informed by Mr. Eliot Galt, of the North-West Coal and Navigation Company, been increased, there having been some 150 new arrivals. There is likely to be a considerable influx from Utah next year. Mr. Woodroff, one of the Mormon leaders, has visited the country during the year, and 58,000 acres have been bought from the North-West Coal and Navigation Company, on which it is proposed to settle some 350 families in the near future. I am told by Mr. Galt that this colony has made great progress, a large amount of building and fencing having been performed. The people are engaged in dairy farming, freighting, etc., and are prosperous and contended. Mr. Galt states they appear to perfectly understand that it will be impossible for them to practice polygamy in Canada. He says that from his own knowledge those already here are observing the law in this respect. Having had a great deal to do with these people in business matters, and being resident in their neighborhood, Mr. Galt is in a position to speak with authority on this point. I have obtained similar information from other sources through which I have made enquiry in this regard.

Land Sales by Railway and Land Companies.

The fact that the sales made by the large land corporations during the past season have been much larger and at better prices than during the previous year is evidence of an increased immigration and of the progress of the country. The Canadian Pacific and Manitoba South-Western Railway Companies' sales this year have been 191,856.99 acres, at \$719,879.15, as compared with 162,272.60, at \$553,911.17 in 1888; and this year's sales have almost all been made in small areas to settlers, whereas the 1888 sales included several large blocks to capitalists. The North-Western Coal and Navigation Company has sold 98,000 acres, as compared with 10,000 acres in 1888 and 26,000 acres in 1887, at an average price of about \$2 an acre. The Hudson's Bay Company's land sales, I am informed, have been larger than in 1888, and at better prices. The Canada North-West Land Company reports that its town lot and agricultural land sales have been considerably in excess of those of last year, and the Manitoba and North-Western Railway Company states that this season's operations have been satisfactory. I have reason to think that the experience of other companies and individual land owners has been of a similar nature.

Hay Lands.

As mentioned in the paragraph of this report relating to last season's crops, the recent hay harvest has been a very light one. Lands which formerly have produced good yields have this year been almost useless for hay purposes. This deterioration is caused to some extent by the gradual drying up of the country of late years, and the drought prevailing during the early part of last summer. But there is another cause which has operated to destroy the Government hay lands. Settlers, in order to make sure of securing the quantity they have obtained a permit to cut, commence haying operations at an early date, lest their neighbors should forestall them. It thus happens that the grass is often cut before the seed has had time to mature and become distributed. Deprived of this natural means of replenishment, the hay

swamps, especially in dry seasons, soon become exhausted. In order to remedy this the Government, when issuing hay permits last spring, granted them subject to the condition that the hay should not be cut before the 20th July, by which time it was estimated the seed would have ripened and fallen. This, I may remark, is a return to the custom of the country before its transfer to the Dominion Government, the Council of Assiniboia having had a law to the effect that if any settler cut hay upon common lands before the 1st of August, or some day proclaimed by the Council according to the earliness or lateness of the season, he should forfeit the same or the value thereof. In its efforts to conserve a product of such value to the country as is the natural hay supply, the Government might fairly have counted upon the hearty co-operation of the settlers, for whose future benefit this protective measure was chiefly designed. I am sorry to say, however, that in many cases individual cupidity seems to have been stronger than considerations of public interest, and a number of settlers commenced cutting before the prescribed date. When steps were taken to forfeit the hay thus illegally cut, complaints of course arose of harshness on the part of the Government.

I am inclined to think that the best policy for the Government to pursue in its own and the North-West's interest is to dispose of what hay lands remain in its posession in settled districts as soon as possible. Under present circumstances the expense and trouble of issuing permits is altogether out of proportion to the revenue derived from them. The difficulty in the way of enforcing protection regulations in districts where hay is scarce and where, of course, such measures are most required, is also very great; a close watch is required to be kept to detect violations, and when steps are taken to punish the offenders the Department cannot fail to incur odium and attacks, stirred up and promoted by the offenders. By selling the hay lands a considerable revenue would be derived, as hay is now in such demand, and the trouble and expense of administering these lands would be avoided. The hay supply would, I think, be very much more efficiently preserved if these lands were in the hands of private persons, as it would be in the owners' interests to prevent waste and exhaustion, and this, for obvious reasons, they would be very much better able to do than the Department. By adopting this course I do not think the Government could be accused of shirking a public duty as, if my view is correct, the hay supply will be better protected than at present; and I question whether it is the duty of the Government to provide practically free hay for any but homesteaders who have not earned their patents, the interests of which class of the community can still be protected by the Government retaining the hay lands, or a reasonable quantity of them, in districts where any considerable number of homesteads remain unpatented.

If my ideas meet with your approval I would suggest that a certain proportion of these lands be offered for sale at public auction before the next having season

arrives.

Timber Supply and Forest Culture.

I would direct your particular attention to the remarks of Mr. Crown Timber Agent Stephenson with regard to the rate of consumption of the timber of the North-West. They show how rapidly the already small accessible forest area of the country is being diminished, and present for solution a problem of the highest importance to the prairie region and the Dominion at large. The deforesting of countries having an abundant supply of timber, and where there is no rapid increase of population, is a serious matter; but when the timber supply of a country is scarcely sufficient for its present requirements, and that country is annually augmenting the number of its inhabitants in an abnormal degree, an extensive and annually increasing diminution of its wooded area is a question of supreme moment and a cause of the gravest alarm. I need not enlarge to any extent upon the serious consequences which must result to the North-West if this state of affairs continues, nor present an array of arguments to demonstrate the vital necessity of some steps being taken to check the loss which is being sustained and the pressing duty of devising measures for creating new sources of supply in order to repair the evil already [PART I]

done. These considerations are so obvious that they cannot fail to present themselves involuntarily to the mind of anyone acquainted with North-West matters. In a country of such long and severe winters as this an adequate supply of fuel, obtainable without excessive cost, is absolutely indispensable. Unless this can be assured, the value of North-West as a field for settlement, however fertile may be its prairies and however exuberant its crops, will be seriously affected. Fortunately, there appear to be coal deposits of considerable extent in various parts of it, and this in some degree compensates for its lack of timber; but coal can never altogether take the place of wood with the agricultural population, for, besides being their main article of fuel, wood is depended upon almost entirely by the settlers as a building material, and is largely used for fencing purposes. Its value in these respects alone is therefore sufficient to justify strenuous efforts to preserve and increase the quantity now in the country. But besides these very practical and patent considerations, other reasons for the preservation and multiplication of forests-more theoretical but of scarcely less importance, if valid—are advanced by many competent authorities on forestry. It is claimed that deforestation produces important climatic changes. In the deforested area, it is said, extremes of temperature are aggravated, and the average moisture of the air is lowered; the neighboring country loses the protection from cold and drying winds which the mechanical action of the forest as a wind-break affords; evaporation from the soil is augmented and accelerated and, the volume of streams, rivers and lakes is diminished. These unfavorable results are stated to be most marked and serious in countries at a considerable distance from the sea or other large bodies of water, and especially where they are separated from stretches of water by high mountain ranges, which interfere to prevent the passage of moisture-laden winds. An increase in a country's forest area is, contrariwise, claimed to exert an opposite influence—to modify temperature, to decrease cold winds in winter and scorching blasts in summer, and to increase the rainfall. These theories as to the climatic and hydrologic influences of forests may or may not be correct. It is a fact that in the North-West, and more particularly in the settled portions, the country has of recent years dried up very considerably—sloughs and marshes are fast disappearing, rivers once navigable are now so low as to render traffic upon them impossible, and damage to crops by drought is becoming frequent; but whether this is in consequence of the rapid consumption and destruction of timber, or results from other causes, I am not in a position to say. Though sufficient definite data have not been obtained to absolutely confirm them, these theories are worthy of notice when considering this subject. If they be correct they add tremendous force to the arguments for forest preservation and multiplication in the North-West, but even if they be chimerical the plain practical considerations of fuel and building material, as I have before said, are of quite sufficient weight to bespeak for this matter the most serious and intelligent regard.

I have the honor to be, Sir,

Your obedient servant,

H. H. SMITH,

Commissioner of Dominion Lands.

APPENDIX TO DOMINION LANDS COMMISSIONER'S REPORT.

MEMORANDUM containing such information as can be obtained respecting the methods of administering Educational Lands in the United States, and the results such have achieved (referred to the Report of the Commission of Dominion Lands, page 12.)

Oregon.—Almost all the school lands in this State have been disposed of. The total school fund is \$1,756,700.90. Lands are sold at \$1.25 an acre, in quantities of not more than 320 acres to one person.

Mississippi.—The fee simple of school lands in this State is never parted with. They are leased for periods of 99 years or less, and are administered by the county authorities. No figures are obtainable to show the financial results of this system.

Louisiana.—The total school land grant to Louisiana amounted to 1,024,000 It is not possible to ascertain how large a quantity has been sold. The capital already realized is \$1,300,000. The School Boards lease the lands in their respective districts for a year at a time on what appears to them to be the most advantageous terms. Lands are sold to the highest bidder on a day set apart for the sale, after the sense of the people in the township where the lands are situated has been taken to ascertain whether they desire them sold or not.

Texas.—The total school land area is 40,000,000 acres. Of this, about 10,000,000 acres have been sold. The lands are sold to actual settlers in quantities of not less than 80 nor more than 2,560 acres, at a price not less than \$2.00 an acre. The prices realized have ranged from that figure to \$5.00 an acre. The terms of sale are: Onefortieth cash at time of purchase; the balance in yearly instalments, with interest on unpaid principal at 5 per cent. The purchaser has the privilege of paying up in full in seven years. The lands are also leased, the annual rental being 4 cents an acre and the leases extending for periods of four and five years. The area under lease is 6,427,966 acres.

Florida.—The school grant to this State consisted of 908,503 acres, of which all but 439,411 have been disposed of. The total fund is \$561,984.25; the prices at which sales have been ranging, from \$1.25 to \$8.00 an acre. The terms of sale are usually

cash, three years time being allowed to actual settlers.

Illinois.—Total school grant was 1,000,000 acres, of which but 7,600 acres remain in the State's possession. The amount realized has been \$5,049,784. Local school authorities may lease the lands in their respective districts for periods not longer than five years. The rental goes to benefit the township school fund. Upon petition of two-thirds of the voters in any township the school land therein is offered for sale. Sales are at auction to the highest bidder, and the terms of purchase are cash at time

of sale. The upset price for the land is fixed by the county authorities.

Minnesota received a total school land grant of 3,000,000 acres, 1,231,293 of which have been sold. The sum of \$7,177,790 has been received for them, the average price being a little over \$5.96 per acre. Sales are at auction, and the lands cannot be disposed of for less than \$5.00 an acre. The terms of sale are, 15 per cent. of the purchase money at time of sale, the balance being spread over thirty years, or it may be paid in full at any time at the purchaser's option. Timber is sold separately from the land, if hardwood. A considerable revenue is derived from pine lands, on which stumpage is charged.

Wisconsin.—The school lands in this State have all been sold, except 79,469 acres. at prices ranging from \$1.00 to \$1.25 an acre. Payments are made, 25 per cent, in cash at time of purchase; the balance in instalments covering ten years, and subject

to interest at 7 per cent on the unpaid principal.

Kansas.—School lands in Kansas may not be sold for less than \$3.00 an acre. They are sold by auction upon petition of the residents in the school districts wherein they are situated. The terms of payment are one tenth cash, the balance

in twenty years, subject to interest at 6 per cent. Lands not sold when offered at

auction may afterwards be disposed of by private sale.

Missouri.—All of the 1,250,000 acres of land granted Missouri have been sold, except 200,000 acres. They have been sold at from \$1.25 an acre upwards, the average price realized being \$2.50 an acre. The funds are under control of the

county authorities.

Nebraska.—The school land grant comprises 2,884,398 acres. The State has deeded 162,051 acres and has under contract of sale 639,454 acres. There are 1,427,460 acres leased. The cash in hand from sales is \$2,100,744, and there is due the State, in unpaid principal, the sum of \$4,432,048. The principal derived from the sale of lands is placed in a permanent fund, and this fund invested in United States and registered county bonds. The funds derived from the interest on these bonds, the interest on unpaid balances on sales, and the lease rentals, go into a temporary fund, which is divided semi-annually to the school districts of the State in ratio of the per capita. The revenue derived from interest on sales for the year ending 30th November, 1888, was \$234,853, and the lease rentals for the same period amounted to \$153,276. Lands are sold by auction, and must not be disposed of for less than their appraised value, which must not be lower than \$7.00 an acre. The terms of sale are: one-tenth in cash; the balance in twenty years, with interest at 6 per cent. on unpaid principal, The land can, however, be paid for in full at any time, at the purchaser's option. Lands not disposed of at public sale are open for leasing, at an annual rental of 6 per cent. on their appraised value. Leases are for twenty-five years, with option of purchase before lease expires.

Indiana.—The school lands are under the control of the county authorities, and are sold at auction. When sales shall take place is decided by an election in the districts in which the lands supplied are situated. The price is not less than \$1.25 an acre, payable one-quarter cash and the balance in ten years. There have been 653.317 acres sold, for \$2.487.806. Lands may be leased for periods not exceeding

seven years.

Arkansas.—School lands are sold on petition of people in district they are situated in at not less than \$1.25 an acre. Terms: one-quarter cash; balance in three years, interest at 8 per cent. Lands may be leased by the county authorities.

Nevada.—Lands are sold from \$1,25 to \$2.00 an acre. California.—School lands are disposed of at \$1.25 an acre.

Territories.—The Territories of the United States do not obtain control of their school lands until they are admitted to Statehood. They are held in trust by the Federal Government, which does not, however, dispose of them, or take any steps to derive a revenue from them for the assistance of education in the Territories they are situated in. Congress has, though, passed legislation enabling the county authorities in Washington and Wyoming to lease the school lands lying in their respective counties, and to apply the revenue derived to local school purposes. The leases are not to be longer than five or six years.

No. 2.

Office of the Superintendent of Mines, Calgary, 31st October, 1889.

Н. Н. SMITH, Esq.,

Commissioner of Dominion Lands, Winnipeg, Man.

SIR,—I have the honor to report through you to the Hon. the Minister of the

Interior on the work of my office for the year ending this date.

In November last my duties called me to Winnipeg, and in December I investigated some matters in the Porcupine Hills, west of Fort Macleod. In January I made an inspection of the farms of the Canadian Agricultural Coal and Colonization Company, and went to Ottawa. I returned in March, and until June was at Calgary the greater portion of the time, making certain inspections from there. In June I investigated certain land claims at Revelstoke, and since the 1st of July have been chiefly engaged on the inspection of the lands within the Canadian Pacific Railway grant which that company desires to reject. Outside of the last matter, reports have from time to time been prepared on all the subjects mentioned.

Crops, &c.

The rainfall during the past season taken throughout the whole of the North West Territories, has been very much less than in any other since the country has been opened for settlement, although, judging from certain indications, not more so than it was about one-fourth of a century ago. On the heavy clay lands, where the cultivation had, however, been thorough, very good crops of wheat were obtained this season, the quality "A1" thereby demonstrating the success of that cereal in a large portion of our Territories during the most unfavorable seasons. Oats and barley generally were a light crop.

Prairie Fires.

During several years past in my reports this subject has been alluded to, and the experience of each succeeding season strongly emphasizes the opinion previously formed. In those districts where the rainfall is meagre, the grass crop is being greatly impoverished, and if preventive measures are not taken many portions of the country will become practically valueless. That these fires can be prevented, and at a moderate cost, has undoubtedly been already demonstrated.

Irrigation.

This matter is one concerning which action has been taken by the North-West Assembly, and reference made to a paper written by the undersigned and read before the Association of Dominion Land Surveyors at their annual meeting in February last. After another season's experience I do not wish to modify the views therein expressed concerning the importance of the subject.

Stock Interests.

The past winter was all that could be desired for range stock; there were few or no spring snow-storms, so that the loss of very young calves from that cause was practically nil; the pasturage being good the stock came out in the spring nearly fit for the butcher. This fact no doubt contributed largely to the prevalence of anthrax in some localities. It is frequently contended by horse raisers that considerable snow is a benefit, preventing worms caused by eating dry grass, the snow mixed with it causing better digestion. Some cattle men asserted that there were a number of

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deaths among the range cattle at calving, this mortality being attributed to costiveness, resulting from the absence of snow.

Horse Breeding.

A very large amount of capital is being invested in the importation of well bred stallions, also a considerable number of high class mares have been imported, so that in the near future one may confidently predict a large and valuable output in that class of stock.

Sheep.

The low price of wool has retarded this industry, which when prosecuted on a large scale does not appear to have been a highly paying enterprise; at the same time, in every case where a settler has not had more sheep than he could personally look after—that is, a flock of from 500 to 2,500—it has proved most profitable.

Woollen Factories.

Probably nothing would stimulate the sheep industry to the extent that the establishment of woollen factories would. There appears to be no reason why, in the near future, if not now, the clothing, bedding, &c., required in this country should not be made here. An experiment in this direction will be made shortly by the opening of a woollen factory a short distance from Calgary.

Shipment of Live Stock to Great Britain.

To many who are not acquainted with the subject it will probably be a matter of surprise that cattle and sheep can be successfully shipped alive from this point to Great Britain. It is only in those cases where the size was low, quality medium and handling bad, that the shipments can be called a failure; and if a horse suitable as a roadster or for carriage or cavalry purposes in Great Britain can be produced here (and there is no reason why this should not be done, but, on the other hand, every indication that these kinds of horses can be reared of a quality equalled in few localities and surpassed in none), then the breeder need have no fears that the cost and risks of transport will make the undertaking a hazardous one.

Horse Fairs.

The suggestion that horse fairs, to be held at some central place, say twice a year, should be established, seems an admirable one. These fairs would bring the dealer and breeder of horses readily and thoroughly together, and, if established at once, it is possible the transactions in connection with them would be considerable, and, within a short period, it is reasonable to anticipate, would assume large proportions.

Reservations for Stock Watering and Shelter.

During the past season several additional reservations for this purpose have been made chiefly in the newly surveyed townships. Many persons have imagined these reservations were intended solely for watering purposes, and have objected in a few cases to the selections; but when the explanation was offered that they were as requisite for shelter as for watering, the reservations have been acquiesced in, and, on the whole, the action of the Department has been well sustained by those conversant with the subject.

Dairying.

It is difficult to understand why more attention has not been paid to this branch of farming in the foot-hill country. Nature has endowed it lavishly in every respect, with succulent grasses, the best of spring water everywhere, a climate which nearly wholly prevents cows being pestered by flies, all that could be desired for curing and marketing dairy produce in the highest perfection, and a good market to the west for this kind of produce, which will rapidly grow, and to which this country has the [PART 1]

most convenient access. Scarcity of labor must be the chief reason why the development of this industry has been retarded, though the past year witnessed an increase of 100 per cent. over the preceding. For parties fitted for such an undertaking, there are on the North American continent few openings as good as this district affords, certainly there are none better.

Poultry and Eggs.

An industry that might be profitably conducted in connection with that of dairying is rearing poultry, both for the meat and also for the production of eggs. A visitor to the Pacific Coast portion of British Columbia is forcibly struck with the fact that large quantities of these products are imported from Oregon and California. As mining and other business developments proceed the demand will rapidly increase. The shipping to Japan, to China, and probably to South America and Australia, which is being rapidly developed, will also add largely to the demand for these, and also for first-class dairy products.

Tree Culture.

Considerable attention has been paid to this subject during the past year, and there has been urged on the Department of Agriculture the desirability of the establishment at some point in the south-western portion of the North-West Territories of a farm or garden for conducting experiments on this line. Failure in tree culture so far as tried seems to be owing not to the severity of the winters, nor to the droughts of the summers, but to the winds. Those in the winter known as "chinooks," which cause the sap to rise and the buds to swell, being followed by a lowering of the temperature (in some cases very rapid), prove destructive; and during the summer there are often high, dry, hot winds which blow continuously for several hours, and which seem to dry up the young trees. By planting in close clumps the native trees (cotton woods and others) which will grow, and among them those ornamental trees which are so much to be desired, these difficulties will probably be overcome, and in time it will be found what ones are best suited to the district.

Tanneries, &c.

In this report it may be well to direct attention to what has been said in my former reports as to the desirability of the establishment of tanneries, &c. It would occur to one who may not be familiar with the details of that, business that as a commercial undertaking the prospects rank high. There must be now available, in the district tributary to the Canadian Pacific Railway in the North-West Territories west of Swift Current, at least 13,000 cow hides and 4,000 sheep-skins annually. And hemlock bark, or the extract therefrom, can be readily and economically obtained.

Iron Ore and Establishment of Iron Industries.

In the Bow River valley iron ores of several varieties, all of good quality and in large quantities, are to be met with in many places, in close proximity to coal of all grades, from first-class cooking to bituminous, semi-anthracite and anthracite proper; all the slags necessary are at hand or accessible by rail (many on the line, others only a short distance therefrom), and labor, if brought in considerable force, should be fairly cheap. Why then should there not be an iron industry? The conditions on the whole are much more favorable than at Pueblo, Col., at which point a large industry of this description has been established, which is growing year by year at a rapid rate.

Petroleum.

There has been considerable local excitement manifested on the east slope of the Rocky Mountains, north of the 49th parallel, respecting this mineral; but development will be required to enable one to estimate the value of the discovery. In this connection it is worthy of consideration whether it is not advisable in the

[PART 1] 25

public interest that petroleum lands should be treated in the same way as coal lands: that is, sold outright at a fixed price per acre. The ordinary regulations requiring on each claim development equalling \$5 per acre per annum does not meet the case. To put down a test hole means an expenditure of several thousand dollars; anything less would be a mere waste of labor and money, and no one will go to that outlay unless a considerable area be secured.

Diamond Drill and Prospecting Company.

It would appear that the time is most opportune for the formation of a diamond

drill company.

This scheme might partake of a double capacity. 1st—The putting down test holes for others at a rate per foot agreed upon. 2nd—When not so engaged, the making of tests by the company on its own account; the recompense in the latter case to be derived from obtaining the first right of purchase should the result of drilling render purchasing desirable.

Natural Gas.

At two points on the Canadian Pacific Railway line, viz., Langevin and Cassils, gas wells have been in existence for nearly six years; the flow has not preceptibly diminished though the wells were piped for water not gas. The probabilities are that if thorough tests were made, combined with correct piping, it would be found that gas exists in sufficient quantity for fuel and lighting purposes. The impetus which the establishment of this fact would give to the progress of the district would be great.

Canadian Agricultural Coal and Colonization Company's Farms.

In January last these farms were all inspected by me, and a detailed report was given of what had been accomplished. Since then there has been no falling off in the energy displayed in the management. Unfortunately the past summer proved very dry and the crops being nearly all on sod and spring ploughing the yield on the whole was a light one, but the result was still good enough to give grounds for strong hopes of future success to the management. In addition to the stock enumerated in my report of January last, some 18,000 sheep, imported from Oregon, were placed on the various farms last fall. In cattle, the output of beef probably counterbalanced the calf crop. In implements, however, there has been a very large increase. The following table shows approximately the area cultivated on each farm during the past season, and also the area intended to be cropped next spring.

	1889	1890
Balgonie	1,440	1,440
Rush Lake	586	1,262
Swift Current	627	1,362
Gull Lake	500	1,212
Crane Lake	565	1,292
Kincorth	490	1,250
Dunmore	577	1,475
Stair	500	1,328
Bantry	266	1,112
Namaka	600	1,591
Langdon	480	1,165
Total	6,631	14,489

Of the anticipated increase about fifty per cent. has been already broken.

Coal Output.

During the past season the two principal points in the North-West Territories at which coal has been mined and shipped are Lethbridge and Anthracite.

24 [PART I]

Lethbridge.—The North Western Coal and Navigation Company has at this point very considerably extended its operations by completing the shaft for hoisting, and making new galleries, levels or drifts, further switches, &c., so that, although the output for the past twelve months may not have increased very considerably over the year preceding, the company is now in a position to increase its output to probably 1,000 tons per diem, and in a short time to double that quantity should the demand increase to that extent. It is anticipated that there will be during next season railway connection to the south giving access to the reduction works at Great Falls, Helena, Butte and Anaconda in Montana, which will afford this company a

large and profitable market for its coal.

Anthracite.—Mining at this point has not until recently been pushed with the energy with which it was formerly conducted, the hesitation being caused by negotiations which have been going on with a view to disposing of this property to a strong English company. These negotiations have not yet been completed, and the present owners have for the past three months been pushing as vigorously as possible new slopes and galleries, so that in a year the output can he worked up to 1,000 tons a day if necessary. In doing this the output of the mine has been greatly reduced temporarily, but in the near future it can be increased. The present proprietors have unlimited faith in this property, and even should the negotiations referred to fail, there is no doubt capital will be forthcoming to work the mine, and, in about one year, to quadruple its previous output. During the past season three new seams have been discovered at Anthracite, two of which, so far as one can judge from their present openings, are from five to seven feet in thickness and of first class quality. The third would appear to be thinner and possibly not of so good quality, but it has not been opened sufficiently for a correct idea to be formed.

Stair.—At Stair, near Medicine Hat, two companies are in existence. The old mine at Stair, originally known as the Woodworth, subsequently the Stair coal mine, has, within the past few months, passed into new hands, and mining and shipping coal has been in progress to some extent. Opposite this mine, on the south bank of the river (South Saskatchewan), a company, known as the Medicine Hat Coal Mining Company, has certain land on which, during the past season, a shaft was sunk to enable mining operations to be carried on. No mining of any appreciable extent has, however, been done, nor can it be done with profit till a branch line of railway, some six miles in length, is constructed, connecting this point with Medicine Hat. The construction of this switch or branch the company states will in the near future

be proceeded with.

Cochrane.—The development or output at the mines here formerly owned by Messrs. Chaffey and Vaughan and also by Mr. T. B. Cochrane, has in the case of the former been nil, in that of the latter not appreciable. A company has been floated in England with, it is reported, a capital of about half a million dollars to purchase and develop the properties of the latter gentleman at Cochrane, which, besides mining property, represent also some lumbering interests. This company has now a mining engineer from England making examinations as to the most economical means of development, and also respecting the establishment of coking furnaces, it being anticipated that

next season will see a demand for coke for smelters to the west.

Canmore.—Considerable development has taken place near this point during the past season, and the number of seams which have been brought to light and their dimensions border on the marvellous. One cannot realize it without a personal inspection, and if late reports are reliable the area of the coal basin in the Bow River west of the gap is very much greater than was heretofore supposed. The output has not been extensive; but sufficient explorations have been made to enable the proprietors to acquire a correct estimate of the quality, of the enormous quantity, and also of how to open out the works to the best advantage.

Smelters.

In my last report the establishment of a smelter at *Vancouver*, B.C., was alluded to. As gathered from reports in the press, the first run of ore unfortunately demonstrated to the press.

[PART I]

strated that a mistake had occurred. This has been followed by litigation, so that the works have heretofore lain idle. It is to be hoped they will shortly be placed in running order and become a source of revenue to the company and of advantage to the community. The mines at Field, B.C., claimed by the same company have also lain idle on account of the smelting operations having ceased.

At Revelstoke smelting works have been commenced; the sampling works in connection therewith are reported as ready to receive ore (in fact it is stated ore is being purchased), and it is expected next spring will see the smelting and reduction

works in operation.

At Golden a company purposes starting next season, at least, a forty-ton smelter, some of the machinery being already purchased. With these in operation mining will no doubt receive an impetus which will require the re-duplication many times over of such establishments. That there is ore in large bodies is undoubted; there are, however, no "poor-man-diggings," nor yet those where the valuable mineral could be obtained by mere stamping, a process which requires the outlay of only a moderate amount of capital. Hence, without the establishment of smelters by corporations with a sufficient amount of capital to construct works on a scale so that ore can be handled and extracted at the minimum of cost and to purchase ores from the individual miner, nothing beyond the merest surface development or prospecting can be accomplished. It may be reasonably anticipated that with a demand for ores a more healthy tone among miners and prospectors will be attained, and the present process of taking up a claim and doing only enough development to conform with the regulations will give place to a vigorous and hearty effort to ascertain by practical experiment on a large scale whether a claim is valuable or the reverse.

I have the honor to be, Sir,

Your obedient servant, WM. PEARCE,

Superintendent of Mines.

No. 3.

DEPARTMENT OF THE INTERIOR,
OFFICE OF THE INSPECTOR OF AGENCIES,
WINNIPEG, 31st October, 1889.

H. H. SMITH, Esq., Commissioner of Dominion Lands, Winnipeg, Man.

SIR,—I have the honor to submit, for the information of the Honorable the Minister of the Interior, the following report upon the general work of my office for the

Departmental year ending this day.

Leaving Winnipeg on the 26th of November, 1888, I inspected the offices at Lethbridge, Calgary and Banff, and on the 9th of December I proceeded to New Westminster. After making an inspection of the Dominion Lands and Crown Timber Agencies at that point, I returned on the 18th of the same month to Calgary to complete some unfinished work. From Calgary I went to Regina, and after inspecting the Land Office there returned to Winnipeg. On the 28th of December I went to Brandon and inspected the Land Office at that place.

The office at Brandon was destroyed by fire on the night of the 13th of February, 1889; and on the following day I went there to secure new premises and

to make arrangements for resuming business.

The fire destroyed the greater portion of the records, but, fortunately, most of the books were saved at considerable personal risk, by Mr. Sutherland, the Assistant Agent. The loss of the records caused much inconvenience, but the satisfactory condition in which the books were found permitted the business to be resumed within four days' time. Much credit for such a condition of affairs is due to the energy of Mr. Hiam and his assistants.

On the 18th of February, 1889, I proceeded by rail to Moosomin, and drove from that point to Carlyle to enquire into certain complaints respecting the conduct of the Agent for that district, the result of which visit was, at the time, reported to you. I, at the same time, made an inspection of the Agency, and returned to Winnipeg to

resume charge of your office during your official visit to Ottawa.

On your return to Winnipeg I went to Deloraine and inspected the Agency there. Leaving Winnipeg on the 4th of April, I proceeded to Calgary, making inspections of the Dominion Lands Offices at Brandon and Regina, and the Land and Timber Offices at Calgary.

On the 21st of May, I left Winnipeg for Edmonton, going by rail to Calgary and

thence across country.

At Edmonton inspections of the Land and Timber Offices were made, and upon their completion I went to Battleford by trail. After inspecting the Land Office there, I went on to Prince Albert and made inspections of the Land and Timber Offices for that district, and then proceeded across country to Qu'Appelle Station, reaching Winnipeg early in July.

Throughout this trip much fine land was noticed, and though the season was exceptionally dry, abundance of good water was found up to the time of leaving

Prince Albert.

On the 10th of July I went from Winnipeg, and visited Minnedosa and Birtle, making inspections of the Land Offices at these places. After a stay at the Winnipeg Office, I visited Deloraine and inspected the office.

Early in August I visited Carlyle and inspected the Agency there.

In September I went to Ottawa on business connected with the Agencies, and upon my return to Winnipeg took charge of your office during your absence.

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On the 4th of October I went to Carlyle to arrange for the transfer of the office from that point to Cannington, and to install Mr. E. C. Phipps, who was appointed

to fill the vacancy caused by the resignation of Mr. McHugh.

On the 22nd of October I went to Deloraine, to ascertain the facts relating to certain charges made against the Land Agent and Homestead Inspector. The charges were discovered to be without foundation, and the person making them could not be found.

Inspections of the several Agencies have, as a rule, shown their affairs to be in a satisfactory condition. Reports of these inspections have from time to time been

made through you for the information of the Honorable the Minister.

I enclose herewith a statement showing the work performed in the several

Agencies during the Departmental year just closed.

When not otherwise engaged, matters pertaining to my duties as a member of the Land Board have fully occupied my time.

I have the honor to be, Sir,

Your obedient servant,

J. M. GORDON.

Inspector of Agencies.

STATEMENT shewing work performed at the various Dominion Land Agencies, for Year ending 31st October, 1889.

							Recoi	mmen	Recommendations for Patent.	Paten	ئد				1		7
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Agency	ncy.					G	Granted.	-	Refused.	Gra	Granted.	Refused.	sed.	Hom	Homesteads.	Pre	Pre-emptions.
Number o		Re- ceived.	Sent.	Re- ceived.	Sent.	No.	Acres.	No.	Acres.	No.	No. Acres. No. Acres	No.	cres	No.	Acres.	No.	Acres.
Battleford Battleford Battleford 2 Birtle 3 Calgary 4 Côteau 5 Dufferin 6 Edmonton 7 Estelbridge 7 Lettlbridge 7 Lettlbridge 9 New Westminster 10 Prince Albert 11 Qu'Appelle 12 Souris 13 Swiff Current 14 Turtle Mountain 15 Touchwood 16 Winnipeg 16 Winnipeg 16 Winnipeg 16 Winnipeg 17 Cotals 17 Cotals 18 Cotals 18 Cotals 19	rd nn nn nn ng ng ng ng ng ng n	385 2,924 2,105 1,606 1,751 1,119 2,280 6,360 6,360 6,360 8,102 8,70 8,70 8,70 8,70 8,70 8,70 8,70 8,70	664 2,933 1,117 1,117 1,654 1,036 6,607 6,607 6,463 3,493 3,493 3,736 8,535 8,535	1,328 1,328	88855 766 766 767 767 767 767 767 767 767 7	1,645	1,248 · 90 24,006 · 52 7,520 8,720 8,720 9,509 · 50 9,509 · 50 56,920 · 57 7,835 56,920 · 57 85,924 · 64 261,026 · 50	68 243 44 55 55 55 55 55 55 55 55 55 55 55 55	10,880 1,120 800 309 450 320 450 8,138 67 6,452 16 1,120 2,886 92 2,886 92		1 320 1 160 1 320 1 319 90			128 128 128 138 14 14 14 143 143 143 143 143 1	1,381.50 20,480 11,524.94 10,720 6,080 1,760 1,242 14,240 15,357 4,161 47,560 26,880 640 22,317.91 21,973.82	104 104 104 104 108 108 108 108 108 108 108 108	451.74 16,640 6,060 8,160 9,600 1,120 1,120 1,52 2,880 2,890 28,400 13,500 14,5

STATEMENT shewing work performed at the various Dominion Land Agencies, for Year ending 31st October, 1889—Continued.

	Total Homostands	Tomes beads.	Acres.	2,709·50 46,076·14	41,911.29	12,200 38	25,385·19	56,510·18 64,460·01	10,883.80	128,954·39 112,618·42 2.394·03	59,492·46	14,817.23	64,828.03	696,050.05		
1	Total 1	LOGGE	No.		250.00	0 E *	154	355 0431	*178	807 705 15	368	* 00 * * 00 *	423	4,416		
	Abandoned Pre-	Homesteaded.	Acres.	11,903.49	320 4,000	097,60		4,443·48	431 · 25	26,640 19,993·35	10,408.78	638 - 50	7,824.60	89,963 45 4,416		
	Abar	Hor	No.		2522	1	:	29	ಣ	167	65	4	49	202		
	`	Pre- emptions, 80 acres.	Acres.	240			:		:	320				260		
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ntries Grant	tered.	Homesteads, 80 acres.	Acres.		<u>8</u>					$\left. egin{array}{cccccccccccccccccccccccccccccccccccc$			08	320		
ion E	Re-en	H _o	No.	::	:	: :	:	: :	:·	Ke-1m		:		3		
Homestead and Pre-emption Entries Granted	Cancelled Lands Re-entered	Pre-emptions, 160 acres.	Acres.	160	5,760 4,480	320	160	1,440	2,078-80	32,160 10,968·53	12,630·16	640	2,887.02	76,724.51		
ead a	Cance	Pre 1	No.	1.9		:07	-	6 :	13	201	08	4	18	482		
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		H _{om} 16	No.	128	627	40	₹	133	14	388 261	147	9	185	1,548	9 70	
	Previously Entered.	Pre-emptions.	Acres.	889.74 2,907.17	20,791·66 20,480	5,681.50	5,004.26	15,364.62	1,800	18,672.95 17,323.55 800	20,163.84	3,165·90	1,681.53	135,366.72		
	usly	Pre	No.	9 02		4 %	36	86 :	12	1119		21	13	298		
		Lands not Previc	Homesteads.	Acres.	2,389·50 13,707·63	29,235·75 26,080	11,409.38	24,745.19	31,016·37 51,014·01	8,212.55	40,123·90 50,919·47 2.074·03	25,338.42	13,059 29	27,369.59	358,935.08	
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	Pre-emptions (M.B. Warrants.)	Acres.	ts. 160	160		3 481.98	155	160	480	20 3,329 · 28
ants.	Pre-	o Z	82 loi 1		:::		:		eo :	20 32 lot
Free Grants.	Half Breed.	Acres.	2 480 2.1 Town site 82 lots.	5 1,040 	171 .65	10 1,789 12 2,128·90 4 Church160	2 Church 80		820.10	41 7,229.65 20 8 8 Church320 2 Town site 82 lots.
	Hal	Zo.	861-	70 : :40	7 :	0124		:		400
	ý	Con- tingent.	\$ cts. 203 50 373 50	487 86 203 84 177 95 328 95 194 09	257 80 1,004 94½	186 80	767 20	290 35	89 77 305 00	5,421 123
	Expenditure.	Rent.	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	480 180 84 200 144	06 ::	240	280	180	350	2,588
	Exi	Salaries.	\$ cts. 1,999 92 1,999 92	3,006 20 1,176 00 1,143 31 1,200 00 1,176 00	2,088 50 6,634 96	2,271 00	4,443 34	2,903 00	1,053 10 4,817 50	40,016 62
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Ž,	Head	General.	51	94 59 88 88 88 88	47	45.	44	40	34	725
	Town Site.	No.	5	13: : : : :	: :	:		:	::	21
	General.	Acres.	310.50	16,783.42 119.80 6,720 57.70 15,619.54	2,547 6,556·53	1,033.95	6,376.52	3,905.52	1,089·90 14,528·88	425 108,897.82
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Sales.	Pre-emptions.	Acres.	3,839 05	1,463·18 320 3,360 252 315	6,420	1,084.12	17,295 39	12,734.59	3,858 23	60,047 · 66
	Pre-	No.	24	022222	41	7 95	120	8	272	406
	Homesteads.	Acres.	159.05	160	160 7,507.65		160		, i	8,146.70
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ns.	y Agent.	Entries b	: &	88 20 17 89	233	1 303		19	84	745
Homesteads and Pre-emptions	Second Entries.	Acres.	5,440	1,760 7,260 2,522.50 1,876.90	4,160	1,827		6,229.78	960	67,048-62
and	Secon	No.	34	10 37 13 9	26	11 88		38	20.00	397
	Total Pre-emptions.	Acres.	1,049.74	26,551.66 24,960 640 6,001.50 5,164.26	16,804-62	3,878·80		32,794	3,805.90 4,568.55	212,651-23
	Pre-	No.	5 ± 5 ± 5 ± 5 ± 5 ± 5 ± 5 ± 5 ± 5 ± 5 ±	166 156 40 40 40 40	104	* 1.7 * 2.2 * 2.5	*41 139 5	*17	388	1,355
	of Agency.	Number	PA	RT I	<u>∞</u> 6	10 1	13 13	14	15	1

Inspector of Dominion Lands Agencies.

STATEMENT shewing work performed at the various Dominion Land Agencies, for Year ending 31st October, 1889-Concluded.

	Total Receipts.		\$ cts. 1,280 cts. 1,4184 03 cts. 14,184 03 cts. 2,396 23 23 23 23 23 24 17 25 25 24 17 25 25 25 25 25 25 25 25 25 25 25 25 25
	sice Cancelled	Extra p	220 230
	es.	Paid at H 0.	\$ cts. 164 55 160 00 160 00 720 00 647 42 518 60
	Pre-emption Sales.	Scrip.	\$ cts. 5,173 0.8 2,353 0.0 400 0.0 6,238 0.0 480 0.0 7,550 0.0 6,550 0.0 6,660 0.0 6,660 0.0 7,550 0.0 7,658 40 113,154 60
	Pre-en	Cash.	\$ cts. \$
		Paid at H. O.	
	General Sales.	Scrip.	\$ cts. \$ cts
ots.	Gen	Cash.	\$ cts. 518 70 568 88 2,558 18 70 568 88 2,558 18 11 1,258 19 1,258 57 1,173 58 1,228 94 1,773 64 1,289 94 1,289 94 1,289 94 1,289 94 1,289 94 1,289 94 1,289 94 1,289 94 1,289 94 1,289 94 1,289 94 1,289 98 29,015 39
Receipts	Sun- dries.		8 8 .
	Hay Dues.		ts. 8 cts. 8 cts. 8 26 270 28 38 36 682 40 5 8 38 36 682 40 5 8 36 682 40 5 8 36 682 40 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
	Mining Fees.		\$ 55 50 173 173
	Improve- ments.		\$ cts. 326 00 189 00 77 00 208 00 175 75 472 00 870 00 870 00 856 52 858 52 88 656 53
	Inter- change Fees.		C C C C C C C C C C C C C C C C C C C
	Inspection Fees.		\$ cts. 1,865 00 1,1,865 00 1,1,150 00 1,500 00 1,540 00 1,540 00 880 00 880 00 8,310 00 6,737 00 6,737 00 2,656 00 2,656 00 2,858 00 2,285 00 2,285 00
	Pre- emption Fees.		\$ cts. 70 00 370 00 1,660 00 1,660 00 1,600 00 1,040 00 3,210 00 1,390 00 230 00 230 00 230 00
	Home-stead Fees.		\$\text{cts}\$. Cts. 180 00 25,500 00
	r of Agency.	əquin _N	1884700 C 00 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1

Note.—The figures for Dufferin shew work done and receipts received up to closing of office in May last; since that date included in Winnipeg agency.

a and b These amounts include receipts from town site sales. J. M. GORDON

No. 4.

Dominion Lands Office, New Westminster, B.C., 1st December, 1889.

H. H. SMITH, Esq., Commissioner of Dominion Lands, Winnipeg.

SIR,—I have the honor to submit for your information the following report on matters relating to this Agency for the Departmental year ended the 31st day of October last.

Settlement in all parts of the railway belt has been steadily increasing, and nearly all the surveyed available land in the New Westminster district is now

 ${f entered}$.

The returns show that a total number of 437 homesteads, covering an area of 65,371½ acres, have been granted; that 53 homestead sales at \$1 per acre, aggregating 7,508·60 acres, have been completed; and 45 general sales, aggregating 6,567·94 acres, have been made. Of this number 31 were made at the rate of \$2.50 per acre, 12 at \$5, and 1 at \$15 per acre. 100 homesteads were cancelled on applications for inspection, and the lands so released regranted to the applicants.

The settlement of the dispute between the Dominion and Province with respect to the ownership of the Sumass Dyking Reserve has enabled me to investigate the claims of settlers in that locality, the majority of whom have since been granted

entries.

Generally speaking, homesteaders are quite contented, and satisfied with their locations and prospects. Clearing is rapidly progressing in all parts of the Fraser River valley, and this district is now the most prosperous and thickly settled of any in British Columbia. Crops of all kinds have been exceptionally good, and above the average of last year, the rapidly progressing cities of Victoria, Vancouver and New Westmnister affording an increasing and remunerative market for all the farm produce of the Province.

In April last I attended at Golden and investigated a number of claims and granted entries in that locality; and in returning I stopped over at Sicamous, and went up the Spillamacheen River as far as Enderby, investigated a number of claims on the ground, and granted entries for such of them as were within the con-

firmed surveys.

Owing to the peculiar character of the country, the skeleton nature of the surveys, and the way in which settlers in advance of survey have located their claims, there will be considerable difficulty in granting entries in the interior districts, and I am of the opinion that in a large number of cases they will require to be dealt with on the ground. The establishment, however, of an Agency at Kamloops would greatly obviate the difficulty, and save the settlers much loss of time and expense, which they can ill-afford, in coming to and returning from New Westminster.

The development of the mineral resources of the railway belt has not progressed as rapidly as was anticipated. The decision of the Privy Council, giving the Dominion the surface rights and base metals, and the Province the precious metals, has greatly complicated matters; and until a joint modus operandi has been concerted between the two Governments foreign capitalists will be extremely shy of investing

in mining enterprises.

In my last report I mentioned that the smelting and reduction works in course of erection at Vancouver were then nearly completed. These works, I regret to state, are now at a standstill, the result of their first operation being to fuse the smelter

and ore in one solid mass. The company, I understand, intend procuring an expert

from England before work is again resumed.

At Revelstoke smelting and reduction works are now being erected by the Kootenay, B.C., Smelting and Mining Syndicate, and another company is about to erect similar works at Golden. With these in full operation in the centres of the mining districts, a rapid development of the mineral wealth of the mountains may be expected.

Practically speaking, nothing has yet been done towards developing the large coal areas that exist within the railway belt. Numerous locations in the vicinity of Kamloops, Ashcroft, Chilliwhack, Sumass, and Kanaka Creek, have been from time to time applied for, and the usual permission to prospect has been granted to the applicants, none of whom, with the exception of Messrs. Guerin and Laney, at Kamloops, and Messrs. McNicholl and Finney, at Ashcroft, have commenced active work of development, as required by the terms upon which their locations were reserved.

Iron ore is now attracting some attention, and locations convenient to the railway, in the vicinities of Cherry Creek, Lytton and Langley, have been granted to

the discoverers.

The erection of smelting and reduction works and the enquiries now being made for this class of mining property will soon give it an appreciable value, which will bring it more prominently to the notice of prospectors, whose attention has hitherto been almost entirely confined to explorations for the precious metals.

All of which is respectfully submitted.

I have the honor to be, Sir,

Your obedient servant,

H. B. W. AIKMAN,

Agent Dominion Lands, B.C.

No. 5.

TIMBER, MINERAL AND GRAZING LANDS.

DEPARTMENT OF THE INTERIOR, OTTAWA, 27th December, 1889.

A. M. Burgess, Esq.,
Deputy of the Minister of the Interior,
Ottawa.

SIR, -I have the honor to submit the tenth annual report of the Timber, Mineral

and Grazing Lands Office of the Department of the Interior.

Statements showing the revenue, amounting to \$102,732.61, derived from Crown Timber, Mineral and Grazing lands, but exclusive of sales of mineral lands for the Departmental year which ended on the 31st of October last, are appended hereto, together with the reports of the Crown Timber Agents at Winnipeg, Edmonton, Calgary, Prince Albert, and New Westminster, B.C. The above amount includes \$868.14, dues on timber cut on school lands.

The revenue is less than that of last year by \$19,015.28. There was a decrease for timber dues of \$14,781.92, for mining fees of \$47.60, for rent of grazing lands, of \$7,811.12; but an increase for hay dues of \$3,539.98, for stone quarries of \$29.23, and

for royalty on coal of \$56.15.

For the sake of reference and comparison, statements showing, both by Fiscal and Departmental years, the revenue received for timber, mineral and grazing lands, from 1872 up to the 31st of October last, have been prepared, and may be found at

the end of this report.

The total revenue from the Winnipeg office amounted to \$34,809.94, being a decrease of \$10,748.58 as compared with the previous year. Mr. E. F. Stephenson, the Crown Timber Agent at Winnipeg, in his report explains the reasons for this falling off of the revenue of his agency. He also makes suggestions concerning matters of vital importance to the public and this Department, which are worthy of careful consideration.

The price of lumber within the Winnipeg agency varies from \$12.50 to \$40, according to the kind and quality of the lumber. There are twenty mills in opera-

tion within this agency cutting timber under Government license.

The revenue received from the British Columbia Crown Timber Agency during the last year was \$18,044.77, a decrease of \$7,522.74; but \$15,147.61 due the Crown prior to the 31st of October, 1889, have since that date been paid in to the Department. Of the amount collected, the sum of \$4,092.50 has been received for bonuses of berths put up to public competition. The total area so acquired was about $45\frac{31}{100}$ square miles, averaging a bonus of \$90.32 per square mile. The total quantity of lumber manufactured for the year amounted to 23,759,942 feet, B.M., as compared with 24,436,895 feet, B.M., for last year, and sold at the rate of \$9 to \$10 per thousand. There are eleven mills cutting timber within this agency. Their capacity, &c., are shown in Schedule "B" annexed to the agent's report. The McLaren-Ross Lumber Company have lately erected the largest saw-mill in British Columbia, having a capacity of 250,000 feet B.M., in twelve hours.

The total amount of dues collected for timber within the Calgary agency during the year amounted to \$16,811.12, being an increase of \$6,211.73. The total quantity of lumber manufactured was 1,149,248 feet, B.M. The price of lumber at Calgary was from \$12 to \$18, at Cochrane \$12 to \$16, at Fort McLeod \$15 to \$43, at Lethbridge \$30, and Cypress Hills \$13. Six saw mills were cutting lumber within this agency last year under Government license, and several portable mills under permit.

PART I

-35

The total amount of dues collected within the Edmonton agency was \$4,041.73, being a decrease of \$2,691.57 as compared with the previous year. The price of lumber at Edmonton during the year was \$20 to \$23 per M. feet B.M., and at St. Albert \$23 to \$25. The agent reports two saw mills in operation within his agency. Two mills were burnt last summer; one is being rebuilt, but it is not the intention to rebuild the other.

The total amount of dues collected within the Prince Albert agency was \$4,093.59, being an increase of \$674.57 over the previous year. Lumber sold at Prince Albert from \$20 to \$42 per thousand, and at Battleford from \$30 to \$35. There is only one saw mill in this agency cutting timber under license, namely, the one at Prince Albert, erected by Messrs. Moore and Macdowall in 1876. There are also several saw mills at Prince Albert and Battleford cutting timber under permit.

Saw mill returns received at the Head Office give the following quantities of building material as having been manufactured and sold during the year within the

five agencies:-

	Manufactured.	Sold.
Sawn lumber	. 39,849,554	41,071,655
Shingles	, , , , ,	2,404,750
Laths	200	675,098

Sixty licenses to cut timber over a total area of 2,289·35 square miles were issued during the year. The areas licensed in the Province of Manitoba, the three Provisional Territorial Districts, and on Dominion lands in British Columbia, are as follows:—

	Milles.
Manitoba	$497 \cdot 31$
Alberta	1,492.67
Assiniboia	59.75
Saskatchewan	$197 \cdot 83$
British Columbia	41.79

The area under license in British Columbia seems small, seeing that the authority of Council has been obtained to issue licenses to cut timber over seventy berths containing, approximately, a total area of 663 square miles. This is caused from the fact that the returns of surveys of the majority of these berths have not yet been filed here. The regulations provide that this must be done before a license issues.

In addition to the 2,247.56 square miles in Manitoba and the North-West Territories under yearly license, an area of 791 square miles is covered by twenty-one year leases, which were issued prior to December 1883. Of this latter area 559 square miles are situated on the shores of Lake Winnipegosis. The leases in question

were acquired at public auction.

The number of applications received during the year to cut timber was 81, of which 45 were for licenses to cut timber in Manitoba and the North-West Territories, and the remainder to cut timber upon Dominion lands in British Columbia. The number of applications during the previous year was 107. Within the past year 11 Orders in Council, which authorized the issue of yearly licenses to applicants to cut timber on lands in Manitoba and the North-West Territories upon their complying with certain conditions, were cancelled for non-compliance. The total area of the berths described in these Orders in Council was, approximately, 506 square miles. The number of berths still under license or authorized to be licensed in the Province and Territories is 149; but it is probable that the Orders in Council which authorized the licensing of some of these berths will soon be cancelled for non-fulfilment of the conditions.

The regulations governing the granting of yearly licenses to cut timber in Manitoba and the North-West Territories, approved by His Excellency the Governor in Council on the 8th of March, 1883, as amended by Orders in Council passed since that date, have been superseded by regulations authorized by Council on the 17th of 36

September, 1889, which regulations also govern the disposal of licenses to cut timber on Dominion lands in the Province of British Columbia, with the exception that the yearly rental of timber berths situated west of Eagle Pass, in the Province of British Columbia, is 5 cents an acre—the same rental that is charged by the Provincial Government-instead of \$5 per square mile, the rent charged for berths in Manitoba and the North-West Territories.

By the same Order in Council the timber permit regulations for Manitoba and the North-West Territories were amended, and were also made applicable to Dominion

lands in British Columbia.

It will thus be seen that the Department has now one set of timber regulations for all Dominion lands, instead of, as formerly, three distinct sets.

Mining Lands other than Coal.

Returns from the Dominion Lands Agents show that during the past year 41 entries were made for mining locations other than coal. The revenue from mining lands other than coal for the year was \$184.15, received in payment for fees for entry, and for registration of assignments. The total area of mining locations sold up to date is 108,086 acres, which realized \$5,406.50.

No amendments have been made to the regulations since October, 1887, with

the exception that the regulations do not now govern the disposition of gold and

silver under Dominion lands in the Province of British Columbia.

Coal Mining Lands.

The number of applications during the year was 125, and 26 of the applicants were given the privilege of purchasing, within a specified time, the location for which they applied, and 43 of the applicants were given permission to prospect thereon. Only two of them bought the land applied for, or a portion thereof, and 4 of the applicants being homesteaders were permitted to mine coal by paying 5 per cent. royalty on coal mined.

The revenue for the year derived from the sale of coal lands was \$1,662.50, being \$73,037.50 less than the previous year. The total area of coal lands sold up to

date is 12,261.63 acres, and the total amount received therefor \$126,171.32.

Ten leases for twenty-one years each were issued in 1882 and 1883, of land within the Souris Coal District, but as the lessees had not complied with the provisions thereof these leases have been cancelled.

By an Order in Council dated the the 11th of July, 1888, the regulations for the disposal of coal lands in the Province of Manitoba and the North-West Territories were made to govern the disposal of Dominion coal lands in the Railway Belt in

British Columbia.

By Order in Council dated the 17th September last, several amendments have been made to the coal mining regulations, and provision has been made for the disposal of coal and other minerals under lands patented, the mining rights of which have been reserved. By the same Order in Council, all patents from the Crown for lands in Manitoba and the North-West Territories shall reserve all mines and minerals which may be found to exist within, upon or under such lands, together with full power to work the same. This is an extension of the Order in Council of the 31st of October, 1887, which made the same provision with respect to lands in Manitoba and the North-West Territories situated west of the Third Meridian.

Grazing Lands.

Several changes and additions have been made to the grazing regulations; the most important addition being that no person shall be allowed to graze stock of any kind on the public domain without the consent of the Minister of the Interior being first obtained, and that the grazing of the same will render them liable to seizure by the Crown and forfeiture by the owner. This provision, I think, will meet the complaint made by some of the lessees of grazing lands that they are paying rent, whilst others who have no leases are paying no rent.

[PART I]

The total number of leases issued by the Department to date is 195. A number of these leases have been cancelled—27 within the last year. The number of leases now in force is 115, covering a total area of 3,113,878 acres.

The following schedule shows the Names of the Lessees of Grazing Lands, the

Number of their Ranches, and the Areas covered by their Leases :--

f he			f ne.		
o Co	NT 6 T	Area in	No. of Ranche	N	Area in
2 C	Name of Lessee.	Acres.	E .C.	Name of Lessee.	Acres.
24	•		ZE		
- 1	North West Cattle Company	44,000	149	P. Dovlo	60,000
$\frac{1}{2}$	North-West Cattle Company	58,960	159	P. Doyle J. J. Sullivan Capt. W. Thorburn	23,000
6	do do Durham Ranche Company	33,000	153	Capt W Thorburn	2,835
11	Alexander Borg	320	154	D. McEachran	16,640
15	Alexander Begg	920	160	J. K. Kerr	42,700
10	Williams	15,000	163	Ingram & Chambers	1,280
160	D. McEachran	16,391	167	Glengarry Ranche Company	52,320
16b	do	29,383	176	McDermid & Ross	36,588
22	do	23,000	185	McDermid & Ross	40,000
25	Cochrane Ranche Company	73,500 38,000 100,000	187	C A Bigger	11,000
26	do do	38,000	189	C. A. Bigger Greely & Wood	8,960
28	A. B. Few	100,000	193	Cypress Cattle Company	38,750
31	Military Colonization Company	60.131	195	Riddell & Green	13,400
33	G. F. Wachter	7,000	197	W. C. Skrine	7,607
34	Cochrane Ranche Company	33,000	201	A. Adzit	1,920
35	North-West Cattle Company	55,000	206	A. Adzit H. D. & F. E. Beveridge	3,675
35a	Moore & Martin	33,700	207	D. Macpherson	18,800
36	C. W. Martin	59,270	217	W. Carter	5,120
38	Alfrey & Brooke	10,000	219	W. Carter C. W. Saunders	3,040
42	Bow River Horse Ranche Company.	34,788			17,000
45	Wells & Brown	12,000	233	G. W. Quick	5,972
48	New Oxley (Canada) Ranche Co	80,000	$\parallel 236$	E. W. Murphy	66,000
55	Winder Ranche Company	50,000	240	W. G. Conrad.	32,580
56	Bell Brothers	5,000	244	G. W. Quick E. W. Murphy W. G. Conrad W. Tait	2,560
57	Ives & Sharp	5,000	248	Curry Brothers	1 11.000
59	New Oxley (Canada) Ranche Co	73,934	247	George Alexander	2,232 11,000
590	C. W. Martin Brunskill & Geddes	26,066 8,606	240	B.A. E. Cross	11,000
65	Bell & Paterson	6,000	201	Thumps & Hele	4,000 5,120
66	Teller Hyde	3,840	202	Thynne & Hole	2,250
74	Julius Hyde	100,000	209	Jonathan Henderson	1,280
77	New Oxley (Canada) Ranche Co	100,000		Dixon, Gow & Co	6,560
82	Walrond Ranche Company	100,000	268	SF. W. & J. W. Ings	7,040
92	W. G. Conrad	100,000	280	F. W. & J. W. Ings H. D. Beveridge	16,650
93	Garnett Brothers	20,000	287	7 S. L. Bedson	880
94	F. W. Godsal. W. F. N. Scobie	20,000	289	Canadian Pacific Colonization Cor-	
96	W. F. N. Scobie	12,000	1	poration	44,000
101	Alberta Ranche Company	27,750	290	O A. Caswell	1,920
104	W. Bell Irving	5,280	300	OCochrane Ranche Company	60,000
107	T. B. H. Cochrane	51,000	30	J. C. Slater	320
108	D. McDougall	6,000	300	John Stewart	960
111	J. Walter Ings	1,920	30	John Quirk	11,000
116	J. Walter Ings N. Boyd North-West Land and Grazing Co.	5,120	300	John Quirk. 3 J. & R. Mitchell	3,040
119	North-West Land and Grazing Co	24,500 11,000	30	Ganadian Pacific Colonization Cor-	11,000
120	M. Oxarart	40,800	21/	poration	2,500
122 123	George Alexander		31	Joseph Fisher Boright & Parsons	6,400
123	W. C. Skrine B. M. Godsal	8,200 720	21	Boright & Farsons	4,640
124	W. H. Somerton.		31	4 A. E. Botterill	2,560
129	Rev. J. McDougall	7,680	31	5 H. T. Morton	640
130	Union Ranching Company	100,000	31	8 F. W. Peacock	
131	Hand-in-Hand Ranching Company.	100,000	320	O Charles Carey	1,920
132	J. Ick Evans	66,000	39	1 James Fidler	1 760
135	D. Macpherson	41,400	32	3 R. G. Robinson. 5 E. Fearon. 6 R. Mitchell.	2,560
137	Brown Ranche Company	33,500	32	5 E. Fearon	480
139	O. C. Gardiner	100,000	32	R. Mitchell	2,240
140	T R Rougtond	88 000	11 32	(P. Dyrne	400
141	P. McLaren	7,500	32	8 J. Mitchell	1,920
143	T. P. McHugh & Co	9,700		m . 1	9.119.070
145	George Sheetz	100,000		Total	3,113,878
146	P. McLaren. T. P. McHugh & Co George Sheetz Canadian Agricultural Coal and	80,000			
	Colonization Company	80,000			
110		[7.	D.(D. 7	7	

These lands are situated principally in the District of Alberta and the southern portion of Assiniboia, with a few tracts in the District of Saskatchewan and the Province of Manitoba.

The number of applications received for leases of grazing lands during the year was only 42. Since April, 1887, the time the Department ceased to grant grazing leases except by public competition, there has been a great falling off in the number

of applications received.

Tiessees

The amount received for rent of grazing lands was \$18,437.71, as compared with \$26,248.83 for the year which ended on the 31st of October, 1888. The revenue from this source has been decreasing rapidly since 1886. In that year it amounted to \$47,337.01; in 1887, \$39,577.10; in 1888, \$26,248.83; and in 1889 as above stated.

The following statement shows the total number of cattle, horses and sheep in what is known at present as the grazing districts of Alberta and Assiniboia, as reported by lessees of ranches, and computed from information derived from other sources:—

Cattle.

91 822

Horses.

10.471

Sheep.

29.282

11,022 10,411	/
Non-leaseholders 15,141 2,851	15,540
The following is a statement of the correspondence, application	ons received and
eturns examined:—	
Number of letters sent	3,718
Number of pages of memoranda and schedules	864
Timber:—	
Number of berths applied for	97
Number of Orders in Council authorizing issue of licenses	
to cut timber	26
Number of licenses for timber berths drawn up	65
Number of returns for saw mills received and verified	86
Number of returns of surveys of timber berths received	
and examined	15
Number of permits issued to cut timber	4,227
Grazing:—	,
Number of applications for grazing lands received	42
Number of leases of grazing lands authorized to be issued.	9
Number of leases of grazing lands issued	10
Number of applications for hay lands	18
Number of permits to cut hay issued by the Dominion	
Lands Agents	2,007
Mining:—	,
Number of applications for coal locations received	125
Number of coal locations of 320 acres and less, sold	2
Number of applications for mineral locations other than	
coal	19
Number of entries for mining locations by Dominion Lands	
Agents	41
Number of mining locations other than coal, sold	. 0
Number of stone quarries applied for	11
Number of mill sites applied for	3
Number of applications for water power	0
Number of sites for smelting works applied for	4

I have the honor to be, Sir,

Your obedient servant,

G. U. RYLEY,

Clerk of Timber, Mineral and Grazing Lands Office.

[PART 1]

STATEMENT of Receipts on account of Crown Timber, for the twelve months ending the 31st October, 1889.

Bonus.	Ground Rent.	Royalty on Returns of Sales.	Permit Fees and Dues.	Seizures, Dues and Fines for Trespass.	Miscel- laneous.	Totals.
\$ cts.	\$ cts.	\$ cts.	\$ ets.	\$ cts.	\$ ets.	'\$ cts.
142 50	126 32	3,897 14	2,255 07	464 25	7 10	6,892 38
1,117 50 494 00 69 75 2,865 00 175 00	1,164 64 6,808 19 348 36 585 34 142 54 1,000 00 403 34	2,784 72 1,063 73 121 29 1,144 32 305 01 952 88 1,311 14	2,705 60 4,230 81 2,751 16 3,047 81 640 70 3,170 43 818 95	989 22 1,017 16 963 68 282 62 273 76 77 83 1,007 83	118 85 10 00 40 00 18 96	8,880 53 13,623 89 4,184 49 5,169 84 4,245 97 5,376 14 3,544 26
60 00 30 00	1,287 60 2,475 39 1,649 64	2,478 46 377 34 5,705 67	252 37 67 44 4,418 55	159 44 38 86 266 90	33 65	4,240 57 2,989 03 12,074 41 76,203 83
nds						868 14 \$77,071 97
	\$ cts. 2,162 95 142 50 1,117 50 494 00 69 75 2,865 00 175 00 7,116 70 ads	\$ cts. \$ cts. 2,162 95 318 32 126 32 1,117 50 1,164 64 494 00 6,808 19 348 36 69 75 585 34 2,865 00 142 54 175 00 4,000 00 403 34 60 00 2,475 39 1,649 64 7,116 70 16,309 68	Bonus. Ground Rent. on Returns of Sales. \$ cts. \$ cts. \$ cts. 2,162 95 142 50 126 32 126 32 3,897 14 1,120 23 3,897 14 1,117 50 494 00 6,808 19 1,063 73 348 36 121 29 348 36 121 29 348 36 34 1,144 32 36 36 36 36 36 36 36 36 36 36 36 36 36	Bonus. Ground Rent. on Returns of Sales. Fees and Dues. \$ cts. \$ cts. \$ cts. \$ cts. 2,162 95 126 32 1,120 23 142 50 126 32 3,897 14 2,255 07 1,117 50 2,255 07 1,164 64 2,784 72 2,255 07 2,705 60 4,230 81 2,255 07 1,117 50 494 00 6,808 19 1,063 73 4,230 81 2,255 00 124 54 305 01 640 70 1,25 585 34 1,144 32 3,047 81 2,865 00 142 54 305 01 640 70 1,75 00 1,000 00 952 88 3,170 43 403 34 1,311 14 818 95 60 01,287 60 2,478 46 252 37 30 00 2,475 39 377 34 67 44 1,649 64 5,705 67 4,418 55 2,478 46 252 37 67 44 4,418 55 7,116 70 16,309 68 21,261 93 25,481 97	Bonus. Ground Rent. Royatty on Returns of Sales. Fermit Fees and Dues. Dues and Fines for Trespass. \$ cts. \$ cts. \$ cts. \$ cts. \$ cts. \$ cts. 2,162 95 126 32 3,897 14 2,255 07 464 25 1,123 08 182 14 1,123 08 182 14 1,125 08 142 50 1,125 08 1,255 07 146 125 1,117 50 494 00 6,808 19 1,063 73 4,230 81 1,017 16 16 1,000 00 1,285 34 1,144 32 1,275 16 16 1,000 36 16 1,000 3	Bonus. Ground Rent. Koyatty on Returns of Sales. Fees and Dues. Dues and Fines for Trespass. Miscellaneous. \$ cts. \$ cts.

G. U. RYLEY, Clerk of Timber, Mineral and Grazing Lands.

DEPARTMENT OF THE INTERIOR, OTTAWA, 31st October, 1889. 53 Victoria.

STATEMENT of Receipts on account of Grazing, Hay and Mineral Lands, for the twelve months ending the 31st October, 1889.

Month.	Grazing	g Lands.	Hay Lands.	Mining Fees.	Royalty from Coal	Royalty from Stone	Totals.
	Cash.	Scrip.			Lands.	Quar- ried.	
1888.	\$ cts.	\$ ets.	\$ ets.	\$ ets.	\$ cts.	\$ cts.	\$ cts.
November December	81 01 41 37	3,620 00 1,140 00	134 85 249 60	33 40 20 00			3,877 26 1,450 97
1889.							
January. February March. April May. June July. August September October	58 10 452 87 14 52 87 67 296 20 324 90 99 73 148 08 30 63	847 00 160 00 1,480 00 840 63 4,840 00 595 00 1,300 00 1,600 00 380 00	236 40 50 05 50 70 86 00 182 95 373 45 1,592 70 2,887 40 767 10 298 35	5 00 12 00 23 25 	4 00	10 00 	1,156 50 694 92 1,572 47 1,019 00 5,324 65 1,308 35 3,002 43 4,641 63 1,285 11 327 35
Totals	1,635 08	16,802 63	6,909 55	184 15	73 25	55 98	25,660 64

G. U. RYLEY,

Clerk of Timber, Mineral and Grazing Lands.

DEPARTMENT OF THE INTERIOR, OTTAWA, 31st October, 1889.

A.—Statement showing Receipts on account of Timber, Grazing, Hay and Mineral Lands, commencing with the Departmental Year 1872-73 and ending the 31st October, 1889.

each Year. S cts. S ct	Scrip.	Hay Dues.	from Coal Lands. \$ cts.	Mining Fees from Stone Quarried.	Constring Stone (Quarried.	## Cts. 2,347 00 2,146 00 2,14	Year to Year. \$ cts. 3,009 05 5,155 05
\$ cts. 2,347 00 2,347 00 3,388 15 31,339 95 44,524 35 75,781 26 150,712 27 93,765 86	s cts.	ee cts	e cts.		et cts.	\$ cts. 2,347 00 2,146 00	\$ cts. 3,009 05 5,155 05
2,347 00 2,146 00 3,760 00 1,820 00 1,820 00 3,388 15 31,339 95 44,524 35 15,781 26 15,781 27 15,781 27 15,781 27 15,781 27						662 05 2,347 00 2,146 00	
2.146 00 3.87 00 1.820 00 2.388 15 3.1.339 95 44,524 35 7.7.781 26 1.7.7.71 27 1.7.7.71 27 1.8.7.78 60 1.8.7.78 60 1.8.78 60 1.						2,146 00	
1,820 00 3,388 15 31,339 95 44,524 35 75,781 26 150,712 27 18,778 83 93,765 86 10,642 50 63,553 84 20,642 74		_				00 789	
3,389 95 31,389 95 44,554 35 75,781 26 10,712 36 93,765 86 10,642 50 63,553 84 10,642 50 10,642 50						320 00	
31,339 95 44,524 35 77,5781 26 10,123 60 150,712 27 18,778 83 93,765 86 10,642 50 63,553 84 20,342 74	:					3,388 15	
75,781 26 10,123 60 150,712 27 18,778 83 93,765 86 10,642 50 18,78 83 63,533 84 20,342 74 18,78 74			:			31,339 95	
150,712 27 18,778 83 93,765 86 10,642 50 16,853 84 20,342 74	:				:	44,524 35	
93,765 86 10,642 50			00 088			170,466 82	
63,553 84 20,342 74						105,157 05	
	00 010 00					84,956 16	
91 20,725 72	28,048 33	1,796 50	Q# .	230 00	4 21	119,829 94	
91,538 24 5,988 42	20,260 41	57	* 17 10			121,432 24	
83 1,635 08	16,802 63					101,864 47	
Totals 787,269 41 105,763 66 85,7	85,724 66	13,995 87	1,781 65	1,265 90	300 61	996,101,76	

* Serin Note for \$80° (included.

B.—Statement showing Receipts on account of Timber, Grazing, Hay and Mineral Lands, commencing with the Fiscal Year 1872-73, and ending the 31st October, 1889.

Rison] Voor	Timber	Grazing Lands	Lands.	Haw Dues	Rents and Bonuses	გი	Royalty	Totals	Totals added
4. 45 (44. 4.) (44. 4.)	Dues.	Cash.	Scrip.	Con Control	from Coal Lands.	Fees.	Quarried.	Totals.	Year to Year.
	& cts.	& cts.	& cts.	& cts.	& cts.	e cts.	& cts.	& cts.	ets.
1872-73		:					:		109 25
1874-75	2,335 25								2,513 50 5,155 05
1875-76					:				5,542 05
1877-78								1,620 00	7,482 05
1879-80									32.928 51
1880-81									64,956 85
1881 -82.		2,245 00		:		:			125,994 99
1882-83		22,844 43		00 66					239,819 79
1884-85		17,089 75		207 25	232 40				505,194 76
1885-86.		29,562 51		966 05					603,993 49
1886-87		14,242 77		1,509 40*					724,486 07
1888-89.	94,964 55 90,290 00	2,207 69	23,023 28 16,802 63	2,123 52° 3,621 10	14 00 39 80	233 90	51 75	126,204 03 113,246 87	850,750 10 963,996 97
Revenue to 30th June, 1889	764,421 14	105,485 22	82,444 66		1,745 10	1,180 90	269 63	963,996 97	
July, 1889.	3,544 26	99 73 178 08 1	1,300 00		72		10 00	6,546 69 8,889 90	970,543 66
September, 1889	2,989 03	30 63	380 00	767 10	35 40	21.00	20 98	4,274 14	983,700 00
October, 1889	12,074 41							12,401 76	996,101 76
Totals	787,269 41	105,763 66	85,724 66	13,995 87	1,781 65	1,265 90	300 61	996,101 76	

* Scrip Note for \$80.00 included.

WINNIPEG CROWN TIMBER AGENCY.

DEPARTMENT OF THE INTERIOR, CROWN TIMBER OFFICE, WINNIPEG, 31st October, 1889.

A. M. Burgess, Esq.,
Deputy of the Minister of the Interior,
Ottawa.

SIR,—I have the honor to submit my annual report of the business transacted within the Winnipeg District for the year ended this date, to be read in connection with which are the following detailed statements, namely:—

(a.) Statement of revenue derived from timber dues and other sources.

(b.) Statement of saw-mills operated under Government license in Manitoba and the Provisional District of Assiniboia as far west as the 3rd Initial Meridian, together with the quantities of material manufactured, sold and on hand by each lessee, respectively.

(c.) General office returns, and other information respecting the work of the

office.

The year was not a favorable one to those engaged in lumbering in this district. The winter was short and the snowfall light. Instead of four months sleighing, as is usual in Manitoba, there were hardly three; hence the season in which hauling could be done was greatly shortened.

I believe that fully one half of the whole winter's cut was left in the woods or hung up on streams, in consequence of low water. But if the quantity of timber cut and left in the woods, from the causes just mentioned, be taken into consideration, a larger business, by several million feet, was done than in the preceding year.

It will be observed, on reference to schedule B, that the total quantity of lumber manufactured by the mills operating under Government license amounts to 13,826,827 feet, B.M., which, compared with last year, shows a falling off of 3,582,309 feet. It must be remembered, however, that the amount of lumber manufactured for the preceding year included the output at the mills at Rat Portage and Keewatin, while this year the operations there were carried on under the supervision of the Ontario Crown Timber Agent, who collected the revenue derived therefrom.

No pine lumber is now manufactured within this agency, except what is brought down the Red River from the State of Minnesota, of which this season there was about 3,000,000 feet. The only standing pine in my district, excepting Jack pine, is in that part of the district of Keewatin to the north of English River and Lac Seul.

Lumbering here is almost exclusively confined to spruce. Tamarac is the only other available timber to be found in any quantity, and as it rarely exceeds a diameter of 12 inches at the stump, it is found more profitable to make it into ties and piles for railway purposes.

The following is a nearly correct statement of the lumber sold during the year:—

Canadian manufacture, 38,464,454 ft., B.M. United States manufacture, 10,429,017 ft., B.M.

The above shows a large increase in the importation of United States lumber over that of last year. This lumber is manufactured at Duluth and other points in the State of Minnesota, with a view, principally, of supplying the trade in the American territories to the West; but owing to the lightness in the demand, brought about largely by the failure of the grain crops in many districts, notably northern Dakota, the Manitoba market is looked to. Shipping facilities have so improved by the incoming of the Northern Pacific Railway that no difficulty is now experienced in [PART I]

placing this lumber upon the market in competition with that from the mills at Rat Portage and Keewatin.

No timber or other products of the forest have been exported from this agency

to the United States during the year.

The gross revenue of my agency for the year amounts to \$34,809.94, which, compared with last year, shows a decrease of \$10,748.58, accounted for chiefly by the fact that about half of the season's cut of logs were not manufactured, the licensee

only being required to pay royalty dues on the amount of timber sold.

It is regrettable to have to report another year of disastrous bush fires. The country lying to the west and north-west of Lake Winnipegosis, as far as the Saskatchewan River, has been pretty generally burnt over, including the valuable timber on the berths on the Bird-Tail Creek, the western slope of the Riding Mountains, Shell River and Duck Mountain district, Swan and Etoimaini Rivers, and the Porcupine Hills. The quantity of timber in the districts named, as nearly as can be estimated, is upwards of 900,000,000 feet, B.M., of which a large part has been damaged by fire. It is needless to point out to you the almost irreparable loss thus sustained.

Timber that has been fire killed only remains good for manufacture three years at the most. A very important question now is, what is the best policy for the Department to pursue in order to get as large a quantity as possible of this dead timber manufactured into lumber within the time mentioned? The subject, I think, deserves

immediate investigation.

In reference to the destruction of our forests, a question much debated is, how do these fires originate? I may say that I have enquired most carefully into the subject, and believe that, in most cases, fires can be traced to the camps and hunting grounds of Indians, while in but few cases they are started by white settlers. When it is known that Indians are constantly roaming through our northern forests, and that white people are seldom seen there, it is apparent that the former are, in nearly every case, the ones who must be held responsible. Those who are familiar with the habits of the Indians on our northern lakes will bear me out when I say that, of late years, the practice has become common among them of starting these fires as a means of communicating their whereabouts to their friends, the smoke serving as a signal. It is further reported that forests are set on fire for the purpose of driving the game to the open. I would recommend that means be adopted to bring to the minds of these people the disastrous consequences to themselves of the destruction of the woods, and that action be taken to punish those guilty of violation of the law, in which efforts I believe the Department would have the support of the more intelligent Indians.

Little damage has occurred during the past year through prairie fires to the timber on Dominion lands in the settled districts, the settlers having taken greater precautions than in former years to prevent them. Many are still of the opinion that these fires are frequently started by sparks from locomotives; but since coal has been substituted for wood as fuel on the engines, and an improved spark arrester has come into use, I believe fires from this cause are of comparatively rare occurrence.

A question which is suggested by the depletion of our forests by fires, and one that cannot be too earnestly considered by the Government, but which has hitherto received little attention, is that of the cultivation of trees on such a scale as to ensure a supply of timber for the future. Although there is no immediate cause for anxiety in Manitoba on that account, still, in some localities the settlers, having cut away all the timber within easy reach, are now compelled to go as far as two days journey, to the heavy timber belts, for a supply. In such localities the people would be found ready, I think, to co-operate with the Government in furthering any measure that promised relief.

The settlers in the North-West Territories are still less favorably situated as regards their timber supply. The treeless prairie, however rich the soil, has little to attract settlement. This is proved by the fact that, up to the present time, settlers are rarely found beyond the reach of timber. What, then, shall be the

remedy? Tree planting, as a means of earning land patents, has, I believe, whereever it has been tried, proved a failure. It seems to be the general opinion of authorities on this subject that it is one which must be dealt with directly by the Government to insure success.

I would therefore respectfully suggest, as a means of encouraging early settlement on the treeless tracts of prairie lands in the North-West Territories, the laying out, at favorable points, along the line of the Canadian Pacific Railway, say between the towns of Moose Jaw and Calgary, of two or more blocks of about eight square miles each, for the purpose of experimenting in forest tree culture. In a very few years under the supervision of a competent nurseryman, these farms could be planted; and by the selection of quick growing trees, such as the native maple, cottonwood, ash and poplar, in the space of about ten years a supply of timber for fencing and fuel could be obtained from the plantation, as a process of thinning out would be necessary from time to time to give room for the development of the timber that would be preserved until it had obtained its full growth. I am informed by experimenters in tree culture that under ordinarily favorable circumstances the maple and ash will bear seed in five years from the time of seeding. If this be true, I see no reason why the forest should not go on increasing by a natural growth from year to year, protection against the invasion of prairie fires being provided: this, in my mind, being almost the only real difficulty in carrying out such an undertaking. besides the direct advantage to the country of the success of such an experiment, it would probably encourage the settlers to imitate the Government in tree culture on their own farms.

Fuel is somewhat cheaper than this time last year. At Winnipeg cordwood is selling, in car lots, at \$2.75 and \$4.50 a cord—poplar and spruce, respectively; \$8.75 is asked for American anthracite coal on car, and \$6.75 for native soft coal.

It is estimated that about 18,000 cords of wood and 30,000 tons of coal were sold on the Winnipeg and western markets during the year, of which quantity about

12,000 tons came from the North-West Territories.

In addition to the ordinary duties of this office, I undertook, in compliance with your instructions, the looking after the illegal cutting of hay upon Government lands. The yield of prairie hay this season has been very light, excepting on the low, marshy lands. The total absence of rain in the spring and the continued dry weather during the early summer can be regarded as the cause. Although many settlers were doubtless obliged to drive their stock a long distance in order to secure a supply of hay, still, I believe that in most cases an ample supply was obtained.

I am glad to be able to report a better observance on the part of settlers of the timber regulations, of which the increased number of permits issued and the fewer number of seizures made is evidence, as may be seen on referring to Schedule C; still, the Rangers are taxed to their utmost, and it is largely due to their constant

A large increase in the routine work of the office over the preceding year will be seen on reference to the same schedule. It is still being performed with the

assistance of the Accountant and one other clerk.

vigilance that trespasses appear so comparatively few.

I have the honor to be, Sir,
Your obedient servant,
E. F. STEPHENSON,
Crown Timber Agent.

STATEMENT of Receipts from Crown Timber Agent, Winnipeg, for year ending 31st October, 1889.

1	cts.	88888888888888888888888888888888888888	177
Totals,	\$ cd 1,409 2 2,647 5	3,867 3 4,886 6 1,457 1 1,689 0 693 0 2,203 6 2,255 2 9,809 6	31,960 77 2,849 17 34,809 94
Hay Illegally Cut.	\$ cts.	85 00 6 50 6 50 858 30 61 25 95 90	675 05
Stone Quarries.	⊕	20 98	20 98
Coal Mines.	\$ cts.	20 00 4 00 1 115	33 15
Timber School Lands.	\$ cts.	140 10 144 79 144 79 35 75 74 50 14 15 3 25 3 25 1 25 1 79 08	698 64 169 50 868 14
Refunded Disburse- ments.	\$ cts.	118 85 10 00 40 00	262 50
Seizures, Dues and Fines for Trespass.	\$ cts.	679 80 931 63 267 75 264 75 158 75 68 43 99 00 38 86 266 90	4,285 29
Permits.	\$ cts. 776 30 2,014 56	2,451 05 3,056 46 1,046 90 649 97 518 13 221 83 725 63 91 42 44 94 4,213 79	15,880 98 15,880 98
Royalty.	\$ cts. 157 19 28 32	362 58 250 74 20 20 83 30 495 72 124 36 793 39 110 28 3,776 02	6,202 10
Ground Rent.	\$ cts. 204 13 55 00	80 00 395 00 82 50 570 00 82 94 1,000 00 5 59 1,426 92	3,902 08 194 47 4,096 55
Bonus.	ets.		2,485 20
Month.	November December 1889.	January Ve February March La March La May June July August August October	Collections at Head Office

E. F. STEPHENSON, Crown Timber Agent.

CROWN TIMBER OFFICE,
WINNIPEG, 31st October, 1889.

PORT OF WINNIPEG.

STATEMENT showing the quantity of Lumber, dressed and rough, entered at the Port of Winnipeg during the Year ended 31st October, 1889.

Description of Goods.	Unit of Quantity.	Quantity.
Lumber, dressed, pine. do oak. Sash Doors. Lumber, rough, pine do oak do basswood do cherry do maple Piling, pine and tamarac. Poles and posts, cedar and tamarac Ties, tamarac. Shingles.	66	4,852,587 4,500 33,030 12,752 5,236,175 271,600 27,165 19,000 1,000 16,990 18,215 26,962 2,263

I hereby certify this statement to be approximately correct.

THOS. SCOTT,

Collector.

Custom House, Winnipeg, 14th December, 1889.

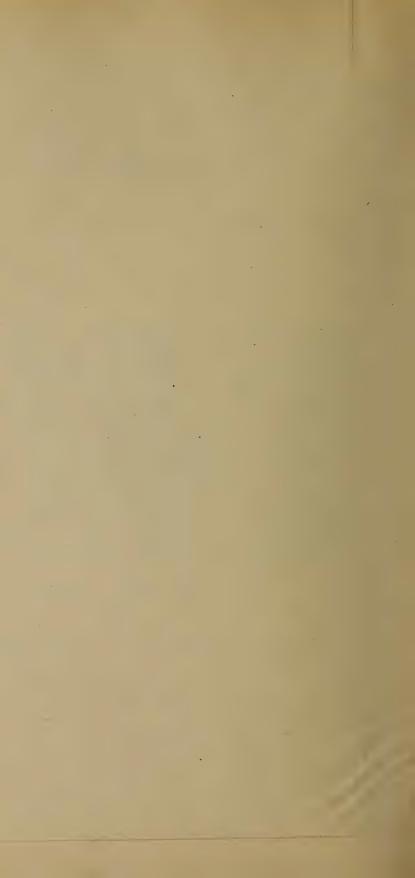
Schedule "B," showing the number of Saw Mills in the Province of Manitoba and the Provisional District of Assiniboia operating under Government license, for the Year ending 31st October, 1889.

Name of Owner or Owner and Assignee.	Where Situated.	Kind of Power.	Horse Power.	Capacity per 12 hours.	Commenced operations.	Location of Limits.	: Description of Timber.	Quantity of Lumber manufactured during Year ending 31st Oc- tober, 1889.	Quantity of Lumber sold from amount on hand 31st October, 1888, and manufactured to 31st October, 1889.	Quantity of Lumber on hand, 31st October, 1889.	Quantity of Shingles manufactured during Year ending 31st Oc- tober, 1889.	Quantity of Shingles sold from amount on hand 31st October, 1888, and manufactured to 31st October, 1889.	Quantity of Shingles on hand, 31st October, 1889.	Quantity of Lath manu- factured during year ending 31st October, 1889.	Quantity of Lath sold from amount on hand 31st October, 1888, and manufactured to 31st October, 1889.	Quantity of Lath on hand 31st October, 1889.	Kemarks.
				Feet.				Ft B.M.	Ft.B.M.	·Ft.B.M.	No.	No.	No.				
Brouse & Co., C. A			20 30	7,000	1879	Bad Throat RiverFisher Bay	Spruce and tamarac	580,284 2,401,582			10,000	10,000		27,000	27,000		
Brown, Rutherford & Co Bucknall Bros	. Millwood	. do	75	30.000	1 1885	Little Boggy Creek	do		445,033	448,164		112,250	57,250	1	38,750	№ 116 000	60 cords wood sold.
Cameron, Alex*Dick, Banning & Co	. Keewatin	Water	150	60,000	1881	Riding Mountain. Lake of the Woods	Red and white pine					[125 railway ties sold.
Federal Bank of Canada						Ebb and Flow Lake, Lake Winnipeg Riding Mountain	do	795,759		334,508							34,561 railway ties sold.
Jermyn, J. A. Jonasson, Sigt	Bad Throat River	do		15,000 12,000	1880	do Bad Throat River	do	1,157,000	04,149						43,028		
*Keewatin Lumbering & Manf. Co Likely, John			200 25	12,000	1880	Islands, Lake of the Woods Bear Creek, Winnipeg River	Red and white pine										301 ship knees on hand. See foot note.
Miller & Patton. Morton, George.	Bird Tail Creek	. do	50	20,000	1880	Riding Mountain Turtle Mountain	do	2,176,223		878,211	160,000	160,000					24,000 railway ties sold.
McArthur, Peter	. Lake Manitoba	. do	20 16	0,000	1885	Basket Creek	Spruce and tamarac	800,000	229,682	613,703							3.403 r'v ties sold (all cut under permit)
North-West Timber Co	Bull Head Bay	do			1884	Riding Mountain	do	245,000 251,553									Lumber manufactured from logs purchased
*Rainy Lake Lumber Co	Rat Portage	do	95	60,000	1883	Rainy Lake.	Red and white pine										by T. Cochrane at sheriff's sale. See foot note.
Ross, David	. Fisher River	do	75	30,000	1880	Whitemouth River	Spruce and tamarac	2,747,072 1,658,232	2,747.072			ì					Cut under permit.
Smith, Samuel	Turtle Mountain	do	75			Turtle Mountain. Roseau River.				1							License cancelled.
Wells Bros	(Ralmoral	do				Township 17, Range 2 E. Riding Mountain											
The state of the s		do	20	0,000	1680	riding Mountain				130,000	199,000	191,500	100,000				782 cords slabs sold.
							Grand Totals	13,826,827	14,744,454	3,699,277	695,000	1,112,250	942,250	64,900	165,478	135,050	

^{*} Now operating under supervision of the Ontario Government { Dick & Banning. Keewatin Lumbering and Manufacturing Co. (Limited). Rainy Lake Lumber Company.

E. F. STEPHENSON,

Crown Timber Agent.



SCHEDULE C.

GENERAL OFFICE Return for the Twelve Months ending 31st October, 1889.

Description of Return.	Number.	Compared with Last Year.		
·		Increase.	Decrease.	
Number of letters written do do received do permits issued homesteaders free. do do subject to dues do seizures made do mill returns received and verified	5,922 2,315 774 2,868 441 35	952 254 72 1,500	1,049 10	

E. F. STEPHENSON, Crown Timber Agent.

CROWN TIMBER OFFICE, WINNIPEG, 31st October, 1889.

EDMONTON CROWN TIMBER AGENCY.

DEPARTMENT OF THE INTERIOR, CROWN TIMBER OFFICE, EDMONTON, 2nd November, 1889.

SIR,—I have the honor to enclose annual statements for the year ending 31st ult., showing an increase as compared with last year of 37 permits granted; also an increase of 57 letters received and 66 sent. The amount received under the head "Returns under Lease" also shows an increase of \$174.84.

The quantity of sawn lumber shows a decrease, owing to the fires that have been burning since early spring which have destroyed large quantities of timber, and which also destroyed two saw-mills. One has since been rebuilt, the other,

owned by the Mission, will not be rebuilt.

This country has suffered severely from fires since early spring, and they are still in the peat smouldering, and will continue until we have heavy snow. I used every possible means to find the origin, but without avail. We are not alone in regard to these fires; they extend over the mountains, and have been more destructive across the international boundary.

Our crops are light, but of an excellent quality, when it is taken into account that last winter we had no snow, and only two or three showers of rain since. It

speaks volumes for the fertility of this district.

Different parties from Ontario, Dakota, &c., have visited this part during the summer, some of them brought here by the Edmonton Board of Trade. They have all left favorably impressed with the country. Some, before leaving, secured homesteads; others intend returning with their families and friends.

The Deputy Minister visited Edmonton this fall, and settled some long standing disputes to the satisfaction of all concerned, and has left behind him the good opi-

nion of all he came in contact with.

The whole respectfully submitted.

I have the honor to be, Sir,

Your obedient servant,

THOS. ANDERSON,

Crown Timber Agent.

H. H. SMITH, Esq., Commissioner of Dominion Lands, Winnipeg, Man.

STATEMENT of Receipts on account of Crown Timber, for the Twelve Months ending the 31st October, 1889.

	Totals.	\$ cts.	. 550 65 50 85 80 1,027 57 88 543 83 83 88 6 83 83 83 83 84 84 84 84 84 84 84 84 84 84 84 84 84	4,(09 95	4,064 65 22 92 4,041 73	r Agent.
Twelve months chang one dist Octobel, 1909.	Total Collected at Head Office.	e cts.	319 00 1,000 00 250 00	1,598 70		ANDERSON, Crown Timber Agent.
are orse or	Total Collected at Edmonton.	\$ cts. 146 35 192 95	450 62 524 09 524 09 106 88 6 88 6 88 141 65 141 65 15 04	2,411 25		ANI
is citating o	Miscel-laneous.	\$ cts.	6 00 6	29 00	dateate	THOS
CIVE ILUICI	Seizures, Dues and Fines for Trespass.	cts	32 0.5 32 0.5 32 0.5 32 0.5 4 4 0 0 4	121 27	uent to that	
TOI DIE T W	Permits.	ets.	28 1189 1189 1146 1172 1272 1273 1273 1273 1273 1273 1273	475 44 29 70 505 14	Office subseq	
TIMBEL,	Royalty.	\$ cts.	155 87 60 23 56 30 491 48 112 30 165 66	1,187 84	received at Head	
It of Olow	Ground Rent.	* cts. 145 00	250 00 230 00 230 00 2 40	1,250 00 1,877 40	888, and recei 39, but not re	
o oii accour	Bonus.	ets.		319 00	to the 31st October, 1889, and received at Head Office subsequent to that date or to 31st October, 1883, but not received at Head Office until after that date	October, 1889.
STATEMENT OF TWOODES OF ACCOUNT OF OTHER PROPERTY OF THE	Month.	November.	January February February TAN March June June July August September October	Amounts collected at Head Office	Add \$54.70 collected prior to the 31st October, 1889, and received at Head Office subsequent to that date Deduc: \$22.92 collected prior to 31st October, 1883, but not received at Head Office until after that date Total	CROWN TIMBER OFFICE EDMONTON, 31st (
	14—51*		[PARI I]			53

SCHEDULE

Showing the Saw Mills in the Edmonton Crown Timber Agency, operating

Name of Owner or Owner and Assignee.	Where Situated.	Kind of Power.	Horse Power.	Capacity per 12 hours.	Commenced operations.	Description of Timber.
				Feet.		
Moore & Macdowall	White Mud	Steam	40	10,000	1885	Spruce
Fraser & Co	Edmonton	Steam	30	10,000	1880	Spruce
Lamoureux Bros	Stony Plain	Steam	20	5,000	1883	Spruce
*St. Albert Mission	St. Albert.,	Water	20	5,000	1883	Spruce
Totals			,			

^{*}Mill burned down. Not rebuilt.

Crown Timber Office, Edmonton, 31st October, 1889.

B. under Government License, during the Year ending 31st October, 1889.

Logs Cut at	Quantity of Lumbermanu- factured during the Year ending the 31st October, 1889.	Quantity of Lumber sold during the Year ending the 31st October, 1889.	Quantity of Shingles manufactured during the Year ending the 31st October, 1889.	Quantity of Shingles sold during the Year ending the 31st October, 1889.	Quantity of Laths manufactured during the Year ending the 31st October, 1889.	Quantity of Laths sold during the Year ending the 31st October, 1889.
	Ft., B. M.	Ft., B. M.	No.	No.		
White Mud, North Saskatchewan	404,212	493,987	229,000	133,000	178,300	18,600
North Saskatchewan River	572,096	273,503	262,000	231,500	7,500	7,500
Stony Plain	97,229	313,561	378,500	373,500	76,500	89,500
Near Egg Lake	40,000	4,744	9,000	98,500		
	1,113,537	1,085,795	878,500	836,500	262,300	115,600

THOS. ANDERSON, Crown Timber Agent.

SCHEDULE C.

GENERAL OFFICE Return for Twelve Months ending 31st October, 1889.

Description of Return.	Number.	Compared w		Remarks.
		Increase.	Decrease.	
Number of letters written	· 649 267 90 4 14	66 57 37	28	,

THOS. ANDERSON, Crown Timber Agent.

Crown Timber Office, Edmonton, 31st October, 1889.

CALGARY CROWN TIMBER AGENCY.

DEPARTMENT OF THE INTERIOR, CROWN TIMBER OFFICE, CALGARY, 5th December, 1889.

SIR,—I have the honor to submit my annual report of the business transacted within this agency for the year ended the 31st October, 1889, viz.:—

Schedule "A." Statement showing the revenue derived from timber dues.
Schedule "B." Number of saw-mills operating under Government license in the

District of Alberta and part of Assiniboia.

Schedule "C." General office returns and other information respecting the work of this office.

I have the honor to be, Sir,
Your obedient servant,
C. L. GOUIN,

Crown Timber Agent.

H. H. SMITH, Esq., Commissioner of Dominion Lands, Winnipeg, Man.

C. L. GOUIN, Crown Timber Agent.

SCHEDULE A.

STATEMENT of Receipts on account of Crown Timber, for the Twelve Months ending the 31st October, 1889.

1	24 ct st	ಣ	20	000	67
Totals.	8, 2, 2, 2, 2, 2, 3, 5, 9, 4, 4, 6, 6, 15, 5, 4, 10, 2, 4, 10, 10, 10, 10, 10, 10, 10, 10, 10, 10	16,787 03	44 05	16,831 08 19 96	16,811 12
Total collected at Head Office.	\$ cts. 25 00 3,488 12 1,250 00 5,678 58 10 86 25 00	10,644 22		;	:
Total collected at Calgary.	\$ cts. 253 44 109 58 995 84 995 84 997 77 2,409 70 67 31 669 89 12 25 13 25	6,142 81		late	
Miscella- neous.	\$ cts.	24 06	05 collected prior to 31st October, 1888, and received at Head Office subsequent to that date.	il after that d	
Seizures, Dues, and Fines for Trespass.	\$ cts. 37 48 140 92 274 60 6 52 58 97 141 94	660 43 27 00 687 43	ice subsequen	ad Office unt	
Permits.	8 cts. 12 25 67 00 69 80 45 30 45 30 61 25 12 12 12 12 12 12 12 12 12 12 12 12 12	2,473 94	l at Head Off	eceived at He	
Royalty.	\$ cts. 241 19 635 12 640 82 15 84 279 67 7 06 15 01 479 70	2,322 12 4,488 12 6,810 24	, and received	889, but not r	Total
Ground Rent.	\$ cts. 250 00 250 00 250 26	6,089 10	October, 1888	lst October, 1	
Bonus,	\$ cts.	150 00 40 00 190 00	prior to 31st	ted prior to 3	
Month.	November December 1889. January February March April May. May- Abulast September I September I October	Amounts collected at Head Office	ADD—\$44.05 collected	DEDUCT—\$19.96 collected prior to 31st October, 1889, but not received at Head Office until after that date.	

Memo.—During the year the sum of \$4.70 was collected for Royalty on Coal Mines.

CROWN TIMBER OFFICE, CALGARY, 31st October, 1889.

SCHEDULE Showing the Saw Mills in the Calgary Crown Timber Agency, operating

Name of Owner or Owner and Assignee.	Where Situated.	Horse Power.	Kind of Power.	Capacity per 12 hours.	Commenced operations.	Description of Timber.
				Feet.		
Peter McLaren	Mill Creek	20	Water	5,000	1882	Spruce, red fir and pine.
Peter McLaren	Fort McLeod	25	Steam	10,000	1888	Spruce, fir and pine
aJames Walker	Kananaskis	60	do	15,000	1887	Spruce, pine & cypress
bCalgary Lumber Company	Cochrane	75	do	20,000	1885	Spruce and fir
Eau Claire & Bow River Lumber Company	Calgary	75	do	25,000	1887	Fir, spruce and Douglas
Louis Sands	Cypress Hills	30	do	18,000		Pine and spruce
cNorth-Western Coal & Navigation Company	Lethbridge	20	do	5,000	1885	Spruce
dD. Morrison	Sheep Creek					
eAlberta Lumber Company	Red Deer					
Totals						

aLast return received 31st October, 1888. bLast return received 30th June, 1888. cMill closed in August, 1888. dDid not saw this season. ϵ Not operating as yet.

CROWN TIMBER OFFICE, CALGARY, 31st October, 1889.

B., under Government License during the Year ending the 31st October, 1889.

Logs Cut at	Quantity of Lumber manufactured during the Year ending the 31st October, 1889.	Quantity of Lumber sold during the Year ending the 31st October, 1889.	Quantity of Shinglesmanu- factured during the Year ending the 31st October, 1889.	Quantity of Shingles sold during the Year ending the 31st October, 1889.	Quantity of Laths manufactured during the Year ending the 31st October, 1889.	Quantity of Laths sold during the Year ending 31st October, 1889.
	Ft., B. M.	Ft., B. M.	No.	No.	No.	No.
Mill Creek		72,884		33,500	3,200	3,200
South Fork of Old Man River	24,248	221,813	48,250	159,750		300
Bow River	· · · · · · · · · · · · · · · · · · ·					
Cochrane						
Calgary	1,125,000	909,626			352,000	347,000
Cypress Hills		86,907		107,750		
South Fork of Old Man River						
	1,149,248	1,291,230	48,250	301,000	355,200	350,500

C. L. GOUIN, Crown Timber Agent.

SCHEDULE C.

GENERAL OFFICE Return for the Twelve Months ending 31st October, 1889.

Description of Return.	Amounts.	Comp with Prev		Remarks.
		Increase.	Decrease.	
Number of letters received do written Notices sent Free permits issued Due do Seizures made Mill returns received Leases cancelled	545 470 262 34 7 12	194 105 367 154 16 6		

C. L. GOUIN, Crown Timber Agent

Crown Timber Office, Calgary, 31st October, 1889.

PRINCE ALBERT CROWN TIMBER AGENCY.

CROWN TIMBER OFFICE, PRINCE ALBERT, 26th November, 1889.

A. M. Burgess, Esq.,
Deputy of the Minister of the Interior,
Ottawa.

SIR,—I have the honor to submit for your information the following report of the business transacted by this office for the Departmental year which ended on the 31st October last, including:

Schedule (A). Statement showing revenue derived from timber dues.

Schedule (B). Number of saw mills operating under Government license in the District of Saskatchewan.

Schedule (C). General office returns, and other information respecting the work of this office.

I have the honor to be, Sir,
Your obedient servant.
JOHN McTAGGART,
Crown Timber Agent.

SCHEDULE A.

STATEMENT of Receipts on account of Crown Timber, for the Year ending the 31st October, 1889.

Month.	Bonus.	Ground Rent.	Permits.	Seizures, Dues and Fines. for Trespass.	Total collected at Prince Albert.	Total collected at Head Office.	Totals.
1000							,
1888.	\$ ets		\$ cts.		\$ ets.	\$ cts.	\$ cts.
			141 65 8 00*	}	149 65		149 65
December			124 01 160 60*	$ $ $\} \cdots \cdots $	284 61	10 00	294 61
1889.							
January			58 84	1	67 44		67 44
February			8 60* 51 60	[i	53 10	20 00	73 10
March			1 50* 51 26	[i	59 01	375 00	434 01
April			7 75* 233 19	11	281 39		281 39
May		,	48 20* 49 58	9 40	151 01		151 01
June			92 03* 51 05	8 00	60 05	54 50	114 55
July			$\frac{1}{102} \frac{00^*}{20}$	4 00	109 40		109 40
August			3 20* 104 91	1 · · · · · · · · · · · · · · · · · · ·	109 81		109 81
September			4 90* 148 00*		148 00	2,269 54	2,417 54
October			1 00 228 25*	} · · · · · · · ·	229 25		229 25
A			1,681 32	21 40	1,702 72	2,729 04	4,431 76
Amounts collected at Head Office	30 00	2,269 54	54 50	375 00			
Totals	30 00	2,269 54	1,735 82	396 40			
				er, 1888, and			15 03
Deduct \$353	3.20 collec	cted prior to	31st Octobe	er, 1889, but n	ot received a	t Head Office	4,446 79
							353 20
		Total					4,093 59

Note.—Dues collected at Battleford shown thus *

JOHN McTAGGART, Crown Timber Agent.

Crown Timber Office, Prince Albert, 31st October, 1889.

SCHEDULE B.

Showing the Saw Mills in the Prince Albert Crown Timber Agency, operating under Government License, during the Year ending the 31st October, 1889.

Quantity of Laths sold during the Year ending the 3lst October, 1889.	44,500
Quantity of Laths manu- factured during the Year ending the 31st October, 1889.	Nil.
Quantity of Shingles sold during the Year ending the 31st October, 1889.	M.
Quantity of Shingles manu- factured during the Year ending the 31st October, 1889.	M.
Quantity of Lumber sold during the Year ending the Slat October, 1889.	t., B. M. Ft., B. M.
Quantity of Lumber manu- factured during the Year ending the 31st October, 1889.	Ft., B. M.
Logs Cut at	
Description of Timber.	Spruce, pine and poplar
Commenced operations.	826
Capacity per 12 hours.	Feet.
Horse Power,	72
Kind of Power.	Steam
Where Situated.	Prince Albert,
Name of Owner or Owner and Assignee,	Moore & Macdowall Prince Albe

JOHN McTAGGART, Crown Timber Agent.

CROWN TIMBER OFFICE,
PRINCE ALBERT, 19th November, 1889

SCHEDULE C.

GENERAL OFFICE Return for the Twelve Months ending 31st October, 1889.

Description of Return.	Number.	Compared w	
		Increase.	Decrease.
Number of letters written. do do received. do permits issued. do seizures made. do mill returns made. d0 permits issued at Battleford.	386 291 169 3 5 27		81 92 46 2 1 17

JOHN McTAGGART, Crown Timber Agent.

Crown Timber Office, Prince Albert, 19th November, 1889.

BRITISH COLUMBIA CROWN TIMBER AGENCY.

DEPARTMENT OF THE INTERIOR, CROWN TIMBER OFFICE, NEW WESTMINSTER, B.C., 26th Dec., 1889.

A. M. Burgess, Esq., Deputy of the Minister of the Interior, Ottawa.

SIR.—I have the honor to submit my annual statement of timber matters in this Province for the Departmental year ending 31st October, to which are attached the following:-

A.- Statement showing the revenue from all sources.

B.—Statement of saw-mills in operation, the logs to supply which are derived from both Dominion and Local Government lands.

In the statement I had the honor to submit to you on the 31st October of last year, I stated that enquiries had been made by both Eastern Canadian and American lumbermen, with the view of establishing extensive mills in the Province. I am now pleased to be able to state that as a result of these enquiries James McLaren, Esq., of Ottawa, and the Ross family, of Quebec, have erected on the Fraser River near this city, the largest mill in the Province, being 450 feet by 75 feet, with a cutting capacity of 250,000 feet B.M. per diem. This has stimulated Canadian and American capitalists, many of whom have their advance guards looking after limit and mill sites.

In my last report I mentioned that our Douglas pine and cedar, both of which are acknowledged by experts to be superior to anything found on this continent, have already found sale at remunerative prices in the markets of China, Japan, the Australian Colonies, and South American States. I am now enabled to say that since that time several cargoes of these woods have been shipped to Great Britain, by way of the Horn, and notwithstanding an excessive rate of freight, found ready sale at prices which warranted further shipments. We have, therefore, every reason to look forward, at a very early day, to an immense expansion of the lumber trade of the Province, the timber of the Rocky, Selkirk, and Gold Ranges of the Rocky Mountains finding their way to our great North-West prairies, the wheat fields of the world; while the lumber manufactured from the timber growing nearer the coast will chiefly go to the other markets mentioned above.

The total amount of timber dues for the Departmental year ending 31st October,

1889, amounted to \$33,192.38.

Of which I received up to that date...... \$18,044 77 \$33,192 38

being an increase of \$7,624.87 over the previous year. I have therefore every reason to anticipate, considering the unprecedented development and ever increasing value of the lands in the 40-mile belt, a revenue for the present year of at least \$50,000.

> I have the honor to remain, Sir, Your obedient servant, T. S. HIGGINSON, Dominion Crown Timber Agent for British Columbia.

SCHEDULE A.

STATEMENT of Receipts on account of Crown Timber, for the Twelve Months ending the 31st October, 1889.

Mouth.	Dues on Timber Cut under License.	Bonus,	Ground Rent.	Permits.	Seizures, Dues and Fines for Trespass.	Total collected at New Westminster.	Amounts collected at Head Office.	Totals.
1888.	. ets.	& cts.	& cts.	& cts.	& cts.	ets.	ets.	e cts.
	537 60 380 70		13 72	162 25		699 85 394 42	89 19 57 60	789 04 452 02
1889.								
	491 16 240 98 85 25			834 85 1,596 83	168 50 17 50 12 00	659 66 1,093 33 1,694 08	1,179 64 755 61 5 00	1,839 30 1,848 94 1,699 08
	305 01 450 10		36 40	2.625 41	35 30		2,633 25	725 05 3,009 96 3,250 51
	680 29 1,093 07						320 40 35 20	1,000 69
	1,778 53		13 72				209 00	2,001 25
Totals Amounts collected at Head Office.	7,034 80	4,092 50	97 44 1,367 39	5,219 34	233 30	12,584 88	5,459 89	
	7,034 80	4,092 50	1,464 83	5,219 34	233 30			
Grand Total								18,044 77

[PART I]

T. S. HIGGINSON, Crown Timber Agent.

CROWN TIMBER OFFICE, NEW WESTMINSTER, B.C., 31st October, 1889.

SCHEDULE B.

SHOWING the Saw Mills in the Crown Timber Agency, New Westminster, B.C., cutting Timber on Dominion Lands, during the Year ending the 31st October, 1889.

Quantity of Lumber sold during the Year ending 3lst October, 1889.	Ft., B.M.	13,130,841	2,514,767	1,392,078	1,862,496		3,606,150	1,253,610		23,759,942
Quantity of Lumber manufactured dur- ing the Year end- ing 31st October, 1889.	Ft., B.M.	13,130,841	2,514,767	1,392,078	1,862,496		3,606,150	1,253,610		23,759,942
Logs Cut at		Douglas pine, spruce and cedar. New Westminster	ор	River	River	New Westminster	ор	ор	ор	
H		r. New W		Wapta River	Beaver River	New W	•	•	:	
ber.		d ceda	·							
Description of Timber.		ne, spruce an	op	op	op	op	op	op	op	
Descrit			op	op	op	op	op	op	op	
Capacity Per 12 hours.	Feet.	75,000	40,000	25,000	25,000	20,000	15,000	15,000	250,000	
Kind of Power.		Steam	ор	op	ф	Water	Steam	op	do	•
Where Situated.		Westminster	·· op	Palliser	Beaver	Popeum	Port Moody	Ladners	New Westminster	
Name of Owner or Owner and Assignee.		Royal City Planing Mills Co New	Brunette Saw Mill Co	Palliser Lumber Co. (W. C. Wells) Palliser	Fred. Robinson Beaver	Knight Bros Popcum	H. V. Edmunds	Grant & Kerr Ladners	MacLaren Ross Lumber Co New Westminster	Totals.

PART I

T. S. HIGGINSON, Crown Timber Agent.

CROWN TIMBER OFFICE,
NEW WESTMISTER, B.C., 31st October, 1889.

No. 6.

ORDNANCE AND ADMIRALTY LANDS.

DEPARTMENT OF THE INTERIOR,
ORDNANCE AND ADMIRALTY LANDS BRANCH,
OTTAWA, 12th December, 1889.

A. M. Burgess, Esq.,
Deputy of the Minister of the Interior,
Ottawa.

SIR,—I have the honor to submit a report of the transactions in connection with the Ordnance and Admiralty Lands Branch of the Department of the Interior for the fiscal year ended the 30th June, 1889.

The schedules annexed, marked respectively A, B and C, show the receipts for the

year to be considerably in excess of those of the year ended 30th June, 1888.

(A.) Statement of Sales.

The following properties have been disposed of during the year:—

(1.) The "Feeder Farm" being part of Lot No. 9 in the 1st or front range of the township of Chatham, P.Q., comprising an area of 90 acres, was sold by public auction for \$1,368 (at the rate of \$15.20 per acre).

(2.) At Edmundston, in the County of Madawaska, N.B., sub-lots Nos. 28 and

29, area 3 roods and 2 perches, were sold for \$75.00.

(3.) At Fort Erie 6 acres of land, forming part of Garrison Reserve, were sold in accordance with an Order in Council, to Mr. W. A. Wood, whose family had occupied and improved the property during a period of thirty-six years. The price

paid was \$120 (or \$20 per acre).

(4.) Certain water lots at Fort Erie, situated in front of lots Nos. 2, 3 and 4, in the 1st Concession of the Township of Bertie, comprising 2,850 lineal feet, were, in pursuance of an Order in Council, sold to the Erie and Niagara Railway Company, who had been in continuous possession of the lots since the year 1864, for the sum of \$4,000 (in addition to the payment of \$4,000 on account of interest).

(5.) At Temiscouata, the property known as "Fort Ingall," consisting of 11 acres of land and sundry dilapidated buildings, was sold by public auction for \$200. For some years prior to the date of the sale it was considered necessary to employ a caretaker, who resided on the premises, and was paid at the rate of \$91 per annum. By the disposal of this property a saving of the amount mentioned has been effected.

(6.) The premises known as the "Old Military Hospital" at Hochelaga with 2a. 1r. 19½p, of land in connection therewith, was sold by authority of an Order in Council to the Government of the Province of Quebec, for the sum of \$11,641.23. As in the case of Temiscouata, the sale of this property has rendered the services of a caretaker no longer necessary. The salary paid to the caretaker for a number of years past has been at the rate of \$182.50 per annum, to which extent a further saving as been effected.

(7.) At Sorel, lot No. 189, in concession of Rhimbeault, 12 arpents and 15 perches,

was sold for \$24.30.

(8.) In the city of Ottawa 12 ordinary town lots and one-half of a lot have, by the payment of \$2,284.82, made by the respective lessees, been converted into freehold, in accordance with the terms and conditions contained in the original leases, granted by the principal officers of Her Majesty's Ordnance.

(B.) Statement showing the several localities of Ordnance properties on account

of which moneys have been received.

68 [PART I]

(C.) Statement of amounts received (monthly) during the fiscal year. The total receipts were, \$42,072.07, being \$5,783.59 in excess of the receipts of the previous

year.

In the month of May last a survey and sub-division of a part of the "Logan's Farm" property lying south of Sherbroke street and extending from the west side of Papineau road to the west side of Beaudry street, in the city of Montreal, was made by Mr. Joseph Rielle, P.L.S., under instructions from this Department, and was laid off into 132 ordinary building lots, having, with a few exceptions, a uniform frontage of 25 feet, by a depth varying from 92 to 121 feet. On the 27th June 97 of these lots were sold by public auction at the rooms of Mr. W. H. Arnton, auctioneer, 1747 Notre Dame street, Montreal, and realized good prices; but as the return of the sale could not be made until after the close of the fiscal year, the receipts on account thereof will be included in the monetary transactions of the current year.

The lease of the Government farm at Longueuil, at present held by Mr. Michael Carmel, will expire on the 1st of May next, and its future disposition will be a matter for the consideration of the Honorable the Minister of the Interior. I have long entertained an opinion that if this property, which comprises an area of about 190 acres, were surveyed and laid off into villa or ordinary building lots, and the same were offered for sale by public auction, upon the usual easy terms as to payment, a sum would be realized sufficiently large to produce, say at 6 per cent. an annual income of at least four times the amount, viz., \$525.00 now paid as rent by Mr. Carmel, and which has been subject to several abatements on account of damages sustained by

him during the prevalance of the serious floods of 1886-87.

The Ordnance property known as "The Common," at Chambly Canton, which has been laid off into 20 building lots, varying in size, has remained vacant for several years. The depressed state of business which has existed for a long time in Chambly has rendered the sale of this property for anything like a sum approaching its real value quite hopeless. The land is eligibly situated, and if fenced in, planted with trees and properly levelled and turfed, might be made a very attractive spot, and could be used when required as a camping and parade ground for the volunteers. Situated as it is, in the immediate vicinity of the picturesque ruins of the old French Fort "Pontchartrain," it would be a subject of regret if it became disfigured by the erection thereon of unsightly and inferior buildings. The custody of this "Common" should, in my opinion, be placed in the Department of Militia and Defence, by whom the suggestions I have ventured to make might be considered worthy of consideration.

With reference to the contemplated leasing of the valuable water power and the premises known as the "Old French Fort" attached thereto, situate at Coteau du Lac, it was considered advisable, before proceeding to advertise the sale of the lease of the property by public auction, to consult the Department of Railways and Canals with a view to ascertaining whether or not any portion of the property was likely to be required for canal purposes, and upon being notified by that Department that it would not be advisable to dispose of these lands in any way before the canal question there is quite decided, the leasing of the property or any portion thereof was indefinitely postponed.

I had intended to submit for your consideration a scheme for the disposal of certain Ordnance properties situated in the city of Ottawa, and at other places referred to in my last annual report, but the pressure of other and important matters have prevented me from doing so. I hope, however, to be in a position to prepare such a scheme as will meet with your approval in the course of the ensuing spring. Since the close of the fiscal year a number of lots, situated in the town of Prescott, have been disposed of, at prices fairly satisfactory. The particulars of this sale will

appear in the report for the current year.

The work of this branch has, during the year, been sufficiently heavy to engage continuously during the ordinary office hours, and not infrequently for hours after, the time and undivided attention of the clerk in charge, and his two assistants, and may be summarised as follows:—

Letters received 590; letters written (including a number of special and lengthy reports), 655; upwards of 500 notices and statements of account prepared and forwarded to tenants and purchasers in arrears; leases issued, 7; drafts prepared for letters patent, 55; assignments registered, 51; and warrants issued for the Bank of Montreal to receive moneys, 117. In addition to which the accounts, numbering 1,100, at present open in the books of this branch, have been carefully kept. Other duties of minor importance might be referred to.

I have the honor to be, Sir,
Your obedient servant,
WILLIAM MILLS,
In charge of Ordnance and Admiralty Lands.

A.

STATEMENT of Sales made during the Fiscal Year ended 30th June, 1889.

Locality.	Number of Lots Sold or Redeemed.	Amount Sold for.	Amount Received on Account.
Chatham, Q. Edmundston Fort Erie do (in the Township of Bertie) Fort Ingall. Hochelaga Ottawa Sorel, Seigniory of. Total	6 acres. Water Lot in front of Lots 2,3 and 4 11 acres. 2 A. 1 R. $19\frac{1}{2}$ P $12\frac{1}{2}$ lots	$\begin{array}{c} 120 \ 00 \\ 4,000 \ 00 \\ 200 \ 00 \end{array}$	\$ cts. 273 60 75 00 120 00 4,000 00 40 00 11,641 23 2,284 82 24 30 18,458 95

WILLIAM MILLS,

In charge of Ordnance and Admiralty Lands.

DEPARTMENT OF THE INTERIOR,
ORDNANCE AND ADMIRALTY LANDS,
OTTAWA, 12th December, 1889.

B.

STATEMENT showing the several Localities on account of which Moneys have been received during the Fiscal Year ended 30th June, 1889.

Locality.	Amount.	Locality.	Amount.
Amherstburg. Chambly. Chatham Elmsley. Edmundston Fort Erie Gloucester. Grand Falls, N.B Hochelaga. Kingston Longueuil. Montreal. Nova Scotia. Nepean	\$ cts. 444 50 121 88 289 60 9 70 75 00 8,241 00 189 58 190 18 11,666 23 4,033 00 4,033 00 40 25 632 66	Brought forward Niagara New Brunswick. Niagara Falls. Oxford Ottawa Point Pelee Quebec. Sorel. Sarnia. South River. Toronto Temiscouata Wolford Registration fees	\$ cts. 26,498 08 518 75 256 25 102 00 1 60 9,656 11 400 00 3,000 00 631 89 40 00 25 00 802 40 40 00 19 39 80 60
Carried forward	26,498 08	Total	42,072 07

WILLIAM MILLS,

In charge of Ordnance and Admiralty Lands.

DEPARTMENT OF THE INTERIOR,
ORDNANCE AND ADMIRALTY LANDS,
OTTAWA, 12th December, 1889.

[PART I]

STATEMENT of Receipts on account of Ordnance and Admiralty Lands, for the Fiscal Year ended 30th June, 1889.

Date.	Registration Fees.	Rent or Interest.	Principal.	Total Amount.
1888.	\$ ets.	\$ ets.	\$ ets.	\$ ets.
July. August September October November December	11 25	5,300 03 1,912 88 483 80 808 55 385 01 391 26	4,533 70 12,272 23 411 32 983 00 4,623 54 563 50	9,856 93 14,185 11 895 12 1,802 80 5,008 55 954 76
1889.				
January . February March April May June	19 00 1 00	355 98 448 57 622 00 2,310 08 1,176 99 715 82	677 59 558 91 508 91 340 00 724 80 883 00 27,080 50	1,039 52 1,007 48 1,130 91 2,669 08 1,902 79 1,619 02 42,072 07

WILLIAM MILLS, In charge of Ordnance and Admiralty Lands.

DEPARTMENT OF THE INTERIOR, ORDNANCE AND ADMIRALTY LANDS, OTTAWA, 12th December, 1889.

No. 7.

ACCOUNTANT'S REPORT.

DEPARTMENT OF THE INTERIOR,
ACCOUNTANT'S BRANCH,
OTTAWA, 28th December, 1889.

A. M. Burgess, Esq.,
Deputy of the Minister of the Interior,
Ottawa.

Sir,—I have the honor to submit the following report referring to the accounts

of this Department for the year ending 31st October, 1889.

During the current year the work connected with this branch has increased with the general work of the Department. The accounts in connection with the expenses of Government for the North-West Territories are rapidly increasing; the school lands accounts, both for revenue and expenditure, which are under the control of this Department, have also considerably increased during the current year. I may be permitted to state that the accounts of this Department, now one of the most important of the Civil Service, are managed most economically, in view of the fact that the staff of this branch is composed of but 3 permanent and 4 extra clerks.

The receipts for the sale and rental of Ordnance lands for the Departmental

year have been \$24,938.15.

Hereto annexed you will find a detailed statement of receipts on account of Dominion lands, showing the monthly revenue from all sources for the twelve months ending 31st October, 1889:

Gross revenue in cash		
Total	\$551,409	63

I have the honor to be, Sir,
Your obedient servant,

J. A. PINARD,

Accountant.

STATEMENT of Receipts on account of Dominion Lands for the Year commencing 1st November, 1888, and ending 31st October, 1889.

Total.	e cts.	12,786 97 17,366 55		19,544 34 22,412 49 16,396 96	20,289	25,876	. 19,459 14,457 29,572	232,854	551,409 63	
Miscellaneous.	e cts.	390 00 289 70		25 00 80 00 132 00			205 00 100 00	1,555 45		ARD,
Rocky Mountains Park of Canada.	& cts.	62 45 34 90		319 75 65 05 68 15						A. PINARL
Surveyors, Examination Fees.	cts.			10 00 20 00 40 00		30 00	30 00			1
Inspection Fees, Front Application for Patents, &c., &c.	ets.	$\begin{array}{c} 1,250 & 00 \\ 1,250 & 00 \end{array}$		1,450 00 1,230 00 1,840 00						-
Map Sales, Office and Regretration Fees, &c.	ets.	120 05 87 01		62 10 126 60 171 50				,		
Royalty from Stone Quarries, Hay Permits, Mining Fees, &c.	\$ cts.	176 25 269 60		251 40 82 05 77 95	.08 88 88	$\frac{388}{1,602}$	2,893 874 327			-
Rents from Grazing Lands.	e cts.	81 01 41 37		58 10 452 87 14 52				1,635 08 16,802 63		
Timber Dues.	e cts.	4,982 32 6,892 38		8,880 53 13,623 89 4,184 49						-
General Sales of Lands.	& cts.	2,862 89 4,977 34		4,983 57 4,099 26 5,957 35						
Improvements.	cts.	242 00 344 25		483 89 1112 77 321 00				23	:	-
Pre-emption Fees.	ets.	390 00 540 00		490 00 420 00 540 00				18:		ERIOR,
Homestead Fees.	& cts.	2,230 00 2,640 00		2,530 00 2,100 00 3,050 00	5,650	6,490 6,320			:	
Month.	1888.	November.	1889.	January. January. March.	LA April.]I June.	August. September. October	Scrip and Warrants	Total	DEPARTMENT OF THE INT

APPENDIX A.

STATEMENT of Entries affecting Dominion Lands, which were made at the Head Office and at the Agency of the undermentioned Colonization Company, during the year commencing the 1st of November, 1888, and ending the 31st of October, 1889.

Total.	Acres.	242,113	1,922	244,035		
	No.	503	13	216		
North-West Coal and Navigation Company.	No. Acres. No. Acres. No. Acres. No. Acres. No. Acres.	39,937 503	:	39,937 516		र्च
S S S S	No.	69	:	69	1010	したく
Manitoba and S-Western Railway.	Acres.	3,712		3,712		W.M. M. GOODEVE,
Ma S-V Ra	No.	17	i	17	>	Z :
Manitoba and nrh-Western Railway.	Acres.	16,283 17		16,283 17	VAX	AT AA
Nort R	No.	37	:	37		
Railway.	Acres.	101,927		101,927		
C. P.	No.	315		315		
Hudson Bay C. P. Railway. North-Western Railway.	Acres. No. Acres. No. Acres. No. Acres.	74,159 315		74,159 315		
Huc	No.	10	:	10		
Special Grants.	Acres.	6,095 10		6 095		
	No.	55	:	55		
mptions	Acres.		322	322		
Pre-6	No.	:	ಣ	ಣ		
Homesteads. Pre-emptions	Acres.		1,600	1,600		
Hom	No.	:	10	10		
Where Made		Head Office. The Temperance Colonization	Society	Total		
- 7*				[PA	RT 1	[]
- 1 - 1 -						

WM. M. GOODEVE, Chief Clerk, Patent Branch. LANDS PATENT BRANCH, OTTAWA, December, 1889. DEPARTMENT OF THE INTERIOR,

APPENDIX B.

Abstract of Letters Patent covering Dominion Lands situated in Manitoba, the North-West Territories, and British Columbia, issued from the Department of the Interior between the 1st of November, 1888, and the 31st October, 1889.

		1888	1889.	1887-	1888.
No.	Nature of Grant.	Number of Patents.	Area in Acres.	Number of Patents.	Area in Acres.
5 6 7 8 9	Homesteads Sales Half-Breed allotments Grants under Manitoba Act Commutation right of common, &c Special grants. Hudson Bay Company. Canadian Pacific Railway Company, North-West Half-Breed grants Coal land sales	1,568 911 68 17 19 44 5 323 30 25	246,380 176,533 16,320 1,715 1,843 6,164 1,679 108,210 5,667 4,822	1,731 999 66 28 23 37 20 270 54	269, 464 175, 425 15, 840 2, 553 2, 289 4, 629 26, 973 122, 310 9, 302
11 12	Free wood lots. Manitoba and North-Western Railway Company grants	37	19,737	2 22	40 12,800
13 14	School land sales. Manitoba and South-Western Colonization Rail-	10	2,052	8	1,480
	way North-West Coal and Navigation Railway Com-	16	3,748	7	1,203
16 17 18	pany Mining land sales Forest tree claims Military bounty grants. North-West Mounted Police grants. Homesteads in British Columbia Railway Belt. Sales do do do Military homesteads Leases. Fore-shore rights.	69 6 1 2 1 57 30 41 1	$\begin{array}{c} 39,933 \\ 681 \\ 160 \\ 320 \\ 160 \\ 8,495 \\ 3,222 \\ 12,794 \\ 1,000 \\ 1 \end{array}$	3 3	3,336
	Totals	3,282	661,636	3,275	647,644

WM. M. GOODEVE, Chief Clerk, Patent Branch.

DEPARTMENT OF THE INTERIOR,
LANDS PATENT BRANCH, OTTAWA, December, 1889.

APPENDIX C.

STATEMENT showing number of Patents forwarded to the several Registrars for the Land Registration Districts of the North-West Territories, and number of notifications mailed to Patentees, from 1st November, 1888, to 31st October, 1889, inclusive.

Registration District.	Number of Patents sent Registrars.	Number of Notifications mailed to Patentees.
Assiniboia. East Saskatchewan West do North Alberta. South do Totals.	758 110 15 33 534 1,450	705 110 15 33 446

WM. M. GOODEVE, Chief Clerk, Patent Branch.

DEPARTMENT OF THE INTERIOR,
LANDS PATENT BRANCH, OTTAWA, December, 1889.

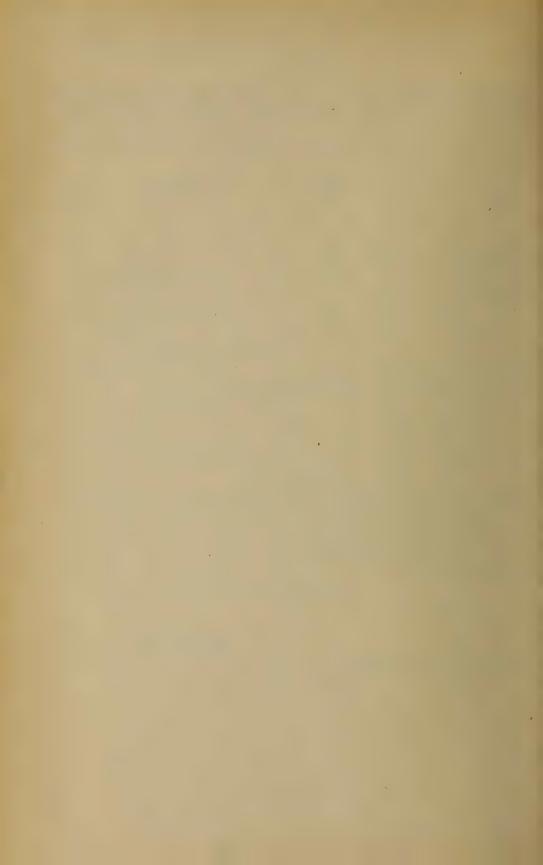
APPENDIX D.

STATEMENT showing the number of Deeds of Transfer recorded at Head Office, from the 1st of November, 1888, to the 31st of October, 1889, and the amount received as fees therefor.

			\$ ets.
Number of Deeds registered	260	Amount received as fees	492 00

WM. M. GOODEVE, Chief Clerk, Patent Branch.

DEPARTMENT OF THE INTERIOR,
LANDS PATENT BRANCH, OTTAWA, December, 1889.



PART II.

DOMINION LANDS SURVEYS.



No. 1.

REPORT OF THE SURVEYOR-GENERAL.

DEPARTMENT OF THE INTERIOR,
TECHNICAL BRANCH,
OTTAWA, 28th December, 1889.

A. M. Burgess, Esq.,
Deputy Minister of the Interior,
Ottawa.

Sir.—I have the honor to submit the following report on the operations of the

Technical Branch of the Department of the Interior during the year 1889.

The great drought which has affected the western part of the Continent for over a year made everything so dry that prairie and forest fires spread with an activity unknown before. Early in the spring they started in the Mountains of Montana, and soon British Columbia and the western part of the Territories were enveloped in smoke. The delay thereby occasioned to survey parties was very great; at times it was impossible to see further than a few hundred feet; several parties could not do any work for months, while others had frequently to stop their surveys, waiting till they could see the line pickets.

MANITOBA.

At the request of a number of settlers, steps have been taken to extend the surveys around Lake Dauphin, principally in the direction of the valley between Duck and Riding Mountains. Dominion Land Surveyor Edgar Bray was instructed to establish the outlines of townships in that locality, and to pay particular attention to the places best adapted for farming. Some of his lines had to be cut through dense woods: it was therefore thought advisable to delay the commencement of operations until the fall of the year and to continue them throughout the winter. His report shows that there is a considerable area of first class land to be found near the Lake.

D.L.S. J. W. Fitzgerald subdivided one township near Whitemouth: he had also to make certain corrections found necessary to his former surveys in that local-

ity.

D.L.S. N. R. Freeman retraced the lines of Townships 14 and 15, Range 8, East of Principal Meridian. These townships are in a low and wooded country and were among the first ones to be surveyed in Manitoba. Most of the marks of the original survey had disappeared.

D.L.S. C. P. Brown had a subdivision contract between Lakes Manitoba and Winnipeg, North of Shoal Lake: the land is low, but excellent for mixed farming.

NORTH WEST TERRITORIES.

In view of the extension of the Manitoba and North Western Railway in the direction of Prince Albert, a party for the survey of township outlines in charge of D.L.S. McLatchie was sent to the White Sand River District early in the spring. The work was carried on throughout the summer and until late in the fall, the party returning only at the end of December.

The halfbreeds of Prince Albert District having made a petition for the survey into River Lots of the lands occupied by them, D.L.S. C. F. Leclerc was sent there during the winter of 1888-89, with instructions to lay out all the lands so occupied in that district. He made the survey to the satisfaction of all parties concerned,

[PART II]

but, owing to some misunderstanding, left out the Carlton Settlement. This was

attended to later on.

D. L. S. J. L. Reid located the old trails from Fort a la Corne to Spence's Crossing, from Pahonan to Carrot River Settlement, and from Duck Lake to Batoche, for the purpose of transferring them to the Lieutenant Governor for the public uses of the Territories. He also renovated and corrected some old survey lines, and laid out into river lots the halfbreed settlement at Carlton which had been left unsurveyed by D. L. S. Leclerc.

D. T. S. J. I. Dufresne had to establish the township outlines west of Muskeg Lake and Misko-wa-sis reserve, preparatory to the subdivision of the lands. Unfortunately, while in the discharge of his duties, he met with a severe accident by which he nearly lost his life, and his survey was thus suddenly brought to an end. He has

not yet sufficiently recovered to leave Prince Albert.

D. T. S. W. T. Thompson located the trail from Qu'Appelle Station to Katepwe. The small wooden pickets used for marking the lots of the Battleford town plot having been pulled out by Indians during the Rebellion or having otherwise disappeared, D. L. S. R. C. Laurie received instructions to replace them. This will be

done shortly.

The old trails from Fort Saskatchewan to Edmonton, and thence to St. Albert, were located by D. L. S. P. R. A. Belanger with a view to their transfer to the North-West Territories. He then proceeded to survey the settlements of Ste. Anne and Lake la Biche. The latter is the most northerley settlement in the North-West Territories: it is very satisfactory to find, according to Mr. Belanger, that the climate there is as good as it is anywhere in the Territories.

Sub-division contracts were let as follows:—

D. L. S. J. H. Brownlee was located in South-Western Manitoba, where a resurvey of four townships, nearly all settled, had been applied for several years ago.

Difficulties of a legal nature delayed the work until last spring.

D. L. Ss. W. R. Burke, John Bourgeois, A. J. Brabazon, Thos. R. Hewson and F. Vincent had contracts on the proposed extension of the Manitoba and North-Western Railway, near the White Sand River. They all completed their work with the exception of Mr. Vincent, who fell sick before commencing his survey and had to return home.

D. L. Ss. C. G. Sheppard and F. W. Wilkins had contracts on Jack Fish Lake, North of Battleford. A few settlers have already located there and more will follow

so soon as the lands are open for entry.

D. L. S. J. F. Ritchie subdivided a few townships or fractions of townships

south east of Fort McLeod.

A triangulation of the portion of the Rocky Mountains under the control of the Dominion Government was commenced this year; the object is to provide a certain number of points from which sectional surveys may be started at any time. At present these surveys can only be made by producing township lines from the railway, so that, for establishing the position of a single claim, it may be necessary to run twenty or thirty miles of township lines. With inaccessible mountains blocking the way, this method is slow, expensive and inaccurate. By the system now adopted, the whole territory will be covered, at a very moderate expense, with a network of triangles, the summits of which being accurately fixed will afford a quick, convenient and economical way of extending the sectional surveys.

This work was under the direction of D. L. S. W. S. Drewry. His force was divided into three parties: he personally selected the positions of the triangulation points and built the signals, being assisted in doing this by his own party and another one in charge of an assistant. The angles were measured by the third party

under D. L. S. L. A. Dufresne.

A base line of over a mile and a half in length was laid on the Cochrane flats in the Bow River Valley: the measurements were made with a 66 foot steel tape to which a uniform tension was applied by means of a spring balance.

4 [PART II]

The progress of the operations was very much delayed by smoke: little could

be done until the end of August.

During his explorations, Mr. Drewry discovered a connection between the Vermillon Pass and the Ottertail Valley: it is quite possible that this may prove, on further examination, a better location for the Railway than the Kicking Horse Pass.

D. L. S. J. J. McArthur continued his topographical survey of the Rocky Mountains. So far, his work has only included the National Park and adjoining coal district, and has therefore been executed with great care and detail. In future, the operations will be carried out with greater rapidity. From present data, it is estimated that the cost should be less than one cent per acre. The first sheets of the maps are now being engraved and will soon be published.

BRITISH COLUMBIA

D. L. S. A. St. Cyr established the boundaries of the Railway Belt on the Columbia River below Golden, above and below Revelstoke, and on Shuswap Lake. For that purpose, he made a micrometer survey of the Columbia River from Golden around the Big Bend to Revelstoke and to the Southern Boundary of the Belt. He had two small wooden canoes and a party of three men. When last heard from he was on Shuswap Lake.

D. L. S. A. Driscoll subdivided lands in Kamloops District: the country being generally open does not offer serious difficultes for surveying, but the settlers are so

scattered that much time is lost in travelling.

In New Westminster District two parties were at work in charge of D. L. Surveyors John Vicars and J. A. Kirk. Their surveys were of the same scattered nature as those in Kamloops District, but the heavy woods along the coast made progress very slow. Part of their time was occupied in correcting and extending the old Provincial Surveys, the other part in traversing the creeks or lakes and marking the boundaries of the Railway Belt.

INSPECTION AND CORRECTION OF SURVEYS

The Inspector of Surveys was, as usual, in charge of the examination of survey contracts in the field, and of the corrections to previous surveys. He had four parties under his direction.

The first party, under D. T. S. J. McAree, was engaged on correction surveys and examination of contracts in Manitoba. In the beginning of the season he laid out the settlement at Pine River on Lake Winnipegosis. Since then he has been constantly engaged in the field and is at the present time examining a survey contract at Whitemouth.

Another party, in charge of D.L.S. L. Gosselin, made a re-survey of the Second Initial Meridian. It was found that, owing to a misunderstanding among the several surveyors who worked in that vicinity, some small errors had crept in. These will be corrected, or the plans made to agree with the lines on the ground.

The Fourth Initial Meridian was renovated by D. L. S. E. W. Hubbell. This line runs through the driest part of the Territories, and the party experienced

some hardship from the want of water.

In the McLeod Calgary District, D. L. S. C. F. Miles surveyed a portion of the Fifth Initial Meridian and effected several corrections to previous surveys.

OFFICE WORK

Owing to sickness among the clerks and to other causes the office work has somewhat fallen behind.

The correspondence was as follows:—

Letters	received	888
Letters	sent,	1315

The Chief Inspector of Surveys assisted me in the general supervision of the work of the Branch.

In addition to his other duties he made, with the assistance of Mr. Klotz, the preliminary calculations necessary for the determination of the limits of the Railway Belt. Details on the subject will be found in his report.

In the draughting room, the work was as usual of a varied character.

A map of the Railway Belt in British Columbia drawn on a scale of twelve and a half miles to an inch, in order to be uniform with our map of the North West Territory, was prepared for printing. Three sheets have also been compiled of a map of the Railway Belt in British Columbia on a scale of three miles to an inch, as small a scale as can be used to show the lots taken up under the Provincial land regulations. It will take altogether five sheets to complete this map: those finished represent the Eastern part of the Belt, the portion around Kamloops and the adjoining district to the West.

The map of New Westminster District, formerly published on a scale of two and a half miles to an inch, was corrected and revised up to the 1st October, for a new edition: this will serve to supply a map of that district in the meanwhile, until a new sheet on the three mile scale, uniform with those of the rest of the Belt, is compiled.

A map of the Kamloops District on a scale of two miles to an inch, not intended for printing, was also compiled, specially to show timber and grazing lands and lands taken up by settlers.

Among other miscellaneous plans prepared were those of the Park Reserves in

British Columbia, and the Rat River Settlement.

Considerable progress has been made in the preparation of an index giving the names of the surveyors and dates of survey for both outlines and subdivision: this index will save much time and trouble in the office.

A schedule for notification to the Hudson's Bay Company of townships surveyed was completed on July 26th, and an account against the same Company for their

share of the cost of surveys was completed on October 11th.

Tables of latitude and departure of a great part of the extensive micrometer traverses made by D. L. Surveyors Fawcett and Ogilvie between the 5th Meridian and Cumberland House have been made up in order to check the agreement of these surveys with that of the Saskatchewan by D. T. S. Klotz. This has involved finding the latitude and departure on more than 1600 courses: a result will soon be arrived at, and will be a valuable check on our maps.

and will be a valuable check on our maps.

Other miscellaneous work performed in the office includes the preparation of contracts for surveys with accompanying sketches, the revision and copying of reports, copying field notes, making descriptions for patents, and checking surveyor's accounts, as well as the considerable amount of work necessary in keeping the information derived from our surveys and surveys of the Timber and Minerals Branch and the

Geological Branch in a form available for use in mapping.

The work in connection with the examination of survey returns, and the preparation of township plans has been carried on as usual.

Below is a synopsis of plans received, examined, &c., during the twelve months. Plans received with corresponding field notes:—

Subdivision
Outlines 1
Road Surveys
Correction and Inspection 143
Settlements or Town Plots 2
Miscellaneous

Number of plans examined	204
Township plans compiled	
Copies of township plans made by hand	
Miscellaneous plans, sketches and diagrams	96
Miscellaneous tracings	72
Plans completed for printing	132
Proofs examined	145
Statutory declarations received	29
Progress sketches received	97

The photographer developed and printed the photographs required for the topographical survey of the mountains, made many copies, enlargements and reductions of maps, and had also a considerable amount of work from the Geological Survey.

A schedule is appended giving the details of the work of the lithographic office.

It shows a total of 88,600 copies, all printed by hand.

BOARD OF EXAMINERS FOR DOMINION LAND SURVEYORS.

The Board has to mourn the loss of one of its members, Mr. P. N. Dorion. Mr. Dorion was one of the original members of the Board when first organized and was most regular in his attendance. His loss will be seriously felt.

Mr. J. I. Dufresne, Dominion Topographical Surveyor, of Montmagny, Que., was

appointed to the vacant place.

Meetings of the Board were held in February and August 1889, and special exa-

minations before one member of the Board in February and June.

The following gentlemen having passed the requisite examinations were granted commissions as Dominion Land Surveyor:—

Examined at Ottawa-

C. H. Pinhey, P.L.S., Ottawa, Ont.

Examined at Winnipeg before Mr. A. H. Whitcher-

H. G. Dickson, P.L.S., Selkirk, Man.

Mr. Geo. M. White, D.L.S. of Toronto, Ont. having passed the higher examination, was granted a certificate as Dominion Topographical Surveyor.

The correspondence of the Board amounted to:

Letters received	159
	140

APPENDICES.

The following documents are appended:—

1. Schedule showing Dominion Land Surveyors employed during the year.

2. Schedule showing the work executed in the Lithographic Office.

3. Reports of the Chief Inspector of Surveys, Inspector of Surveys, and Surveyors in charge of parties.

4. Report of W. T. Thompson on survey in Peace River District (omitted at the

time.)

5. Examination papers of the Board of Examiners for Dominion Land Surveyors.

. I have the honor to be, Sir,

Your obedient servant,

E. DEVILLE, Surveyor-general.

SCHEDULE of Dominion Land Surveyors employed during the Year ending 31st October, 1889.

Surveyor.	Residence.	Description of Work.
		,
		Inspection and correction of Surveys. do do do
Miles, C. F	Walkerton, Ont	do Survey of Township outlines.
Hubbell, E. W	Ottawa, Ont	do do do
Gosselin, Louis	Quebec, Que	do do do
Fitzgeraid, J. W	reterboro, Ont	Meridian
		Sub-division of Townships 14 and 15 in Range 8, east of the Principal Meridian.
	Winnipeg, Man Ottawa, Ont	Sub-division of Townships 21 and 22 in Range 3, and 22 in Range 4, all west of the Principal Meridian. Survey of Township outlines.
Leclerc, C. F	St. Jean, Port Joli,	
	Port Hope, Ont	Survey of trails—Fort à la Corne to Spence's Crossing of South Saskatchewan—Pahonan to Carrot River Settlement—Duck Lake to Batoche—and survey of Township houndaries.
Dufresne, J. I Thompson, W. T	Montmagny, Que Qu'Appelle, Assa	Survey of Township outlines. Survey of trail from Qu'Appelle to Katenwe, Assa.
Belanger, P. R. A	Battleford, Sask L'Islet, Que	Re-survey of Battleford town plot. Survey of trail Fort Saskatchewan to Edmonton and thence to St. Albert, and River lots at Ste. Anne and Lac la Biche.
		Sub-division of Townships 5 and 6 in Ranges 31 and 32, all west of the Principal Meridian.
	1	Sub-division of Townships 28 and 29 in Range 4, and part of 30 in Range 4, west of the 2nd Initial Meridian.
		Sub-division of Townships 29 and 30 in Range 7, and Township 30 in Range 9, west of the 2nd Initial Meridian.
Branazon, A. J	Portage du Fort, Que	Survey of town plot of Canmore and sub-division of Townships 29 and 30 in Range 8, and part of Township 28 in Range 8, all west of 2nd Initial Meridian.
· ·		Sub-division of Townships 28, 29 and 30 in Range 5, west of 2nd Initial Meridian.
		Sub-division of Townships 47 and 48 in Ranges 17 and 18, west of the 3rd Initial Meridian.
		Sub-division of Township 45 in Range 15, Townships 47 and 48 in Range 16, and Township 46 in Range 17, west of the 3rd Initial Meridian.
		Sub-division of Townships 3 and 4 in Range 20, Township 4 in Range 21, and parts of Townships 1, 2 and 3 in Range 24, Township 3 in Range 25, and Township 9 in Range 29, all west of the 4th Initial Meridian.
Drewry, W. S McArthur, J. J	Belleville, Ont Aylmer, Que	Triangulation of Railway Belt. Topographical Survey of Rocky Mountains. Posting boundary of Railway Belt, B.C.
Driscoll, A	Aylmer, Que	Posting boundary of Railway Belt, B.C. Sub-division and other surveys, Kamloops District, B.C. Sub-division and other surveys, New Westminster District,
		B.C. Sub-division and other surveys, New Westminster District, B.C.
	Preston, Ont	B.C.

E. DEVILLE.
Surveyor-General.

SCHEDULE showing the work executed in the Lithographic Office during the year ending 31st October, 1889.

Forms, Total.	of No. of No. of No. of No. of Poriginals. Copies.	50 5 2,809 24 3,879 150 8 1,521 40 3,371	550 6 17,392 55 26,502 775 4 1,314 31 7,184 1,630 5 1,518 31 4,603 200 7 1,114 38 2,945 200 7 1,114 38 2,944 3 1,323 11 9,448 5,009 9 5,604 950 18 2,715 75 15 7,560 31 9,420
Circulars.	No. of No. of Copies.		24421 1 504421
Township Plans.	No. of Copies.	880 1,650	880 1,045 1,045 1,535 1,535 1,595 1,
Towns	No. of Plans.	16 30	16 19 29 29 60 6 8 10 10
Maps.	No. of Copies.	140 50	7,680 4,820 410 150 1,785 8,125 430 1,545 1,235
M	No. of Maps.	1 7	#88 8 8 8 4 H 7 7
Months	MOHUIS.	November	January February March March April Abril July Hugust September October

3. DEVILLE, Surveyor-General.

No. 2.

REPORT OF W. F. KING, D.T.S., CHIEF INSPECTOR OF SURVEYS.

DEPARTMENT OF THE INTERIOR,
TECHNICAL BRANCH,
OTTAWA, 13th December, 1889.

Sir,-I have the honor to submit my report on survey operations during the

past year.

Since the date of the last annual report, I have not performed any field work, the astronomical determinations of positions having been temporarily stopped. I must therefore confine myself to a short account of the work performed by me in

the office, with a few words regarding the surveys in the field.

During the greater part of last winter, I was engaged in the calculations of the longitudes observed during the season of 1888. The manner of making and reducing the observations I have discussed in my reports for the years 1887 and 1888, and some of the results, as to personal equation, instrumental constants &c, were given in the latter report. The final results, viz. the longitudes of the various stations at which observations were made, cannot be given, as they depend upon the longitude of Winnipeg, which is subject to a large uncertainty, and until this longitude is known the publication of the results would be misleading.

Afterwards I was engaged in the calculation of the limits of the Railway Belt in British Columbia. In this I was assisted by Mr. Klotz, who, in his report, gives the method adopted in making the calculation. The reason of the intricacy of the cal-

culation may be explained thus:

The limits of the belt are to be twenty miles from the Canadian Pacific Railway. If this railway were a straight line on a plane surface, the line 20 miles from it would be a parallel straight line, and it would be very easy to determine its intersections with section or other lines, and to tabulate the positions of these intersections for the use of surveyors in the field, who would have merely to survey these section lines and to plant their post to mark the limit when they arrived at the given point of intersection. Or if the line were an arc or arcs of circles on a plane surface, having radii greater than the distance apart of the lines (20 miles), the limits would then be arcs of circles about the same centres as the arcs forming the railway line.

But since these arcs have radii much less than twenty miles (not more than a few thousand feet at most) the radii cross one another on the concave side of the curve before they reach the limit, and the resulting arc of the belt limit will fall nearer to the railway line than the arc similarly drawn from the adjacent curves of the railway, and therefore will not be the true limit of the belt. Only on the convex

side of the curve will the arc described as above form the limit.

It is necessary therefore to make a plot, or to perform a calculation equivalent to plotting, of all these curves, and to exclude those which fall in the above manner within the belt limit, since this limit must not be less than twenty miles from the

nearest point of the railway.

The calculation, however, is rendered much more difficult by the fact that the railway, although a series of straight lines and circular curves, does not lie on a plane surface, but on a spheroidal one. For the parallel to a straight line (i.e., a great circle) becomes, on such a surface, a small circle, or a circular curve on the ground. 'The parallel to the arc of a circle becomes the arc of another circle not having the same centre, or, rather, it becomes a geodetic circle. The calculation of

the limits with these refinements of geodesy is impracticable, on account of the great

number of curves (nearly 6000) which have to be computed.

The best that can be done is, when certain points have been determined by the method given by Mr. Klotz, to plot them on township diagrams, and connect them by curves of the proper radius. Then rejecting those curves or parts of curves which fall nearer the railway line than others, to tabulate the positions, with regard to section, township, and range, of the various intersections of the outer curves, as well as the radii of the arcs between them, and the positions of the centres of these

The surveyor being on the ground in the vicinity of some of these tabulated points will then know that between such and such points the limit is an arc of given centre and radius, and can readily determine his actual distance from that centre, and thence how far he is from the limit.

It is needless to say that the calculation is very long and tedious; that portion

of it described by Mr. Klotz is but a small part of the work.

Mr. Drewry has been engaged on the triangulation survey in the Rocky Mountains. In his report will be found a full description of the work performed. Unfortunately much time was unavoidably lost by the dense smoke which prevailed in the mountains during a great part of the summer, but nevertheless the triangulation was

successfully inaugurated and a large tract of country covered.

In the mountain region, there are often fertile valleys, mineral deposits, or tracts of forests, distant from the railway line, and not readily accessible therefrom except by circuitous routes, but yet valuable. There are no means at present of connecting the survey of these tracts with the general system other than by making long, circuitous, and very expensive surveys to the points established by the traverse of the railway line. The stations of the triangulation are marked by large and not easily mistakeable cairns on the summits of the most prominent peaks. Other and intermediate marks are left by the surveyor engaged in filling in the topography. It will be easy for a surveyor to locate himself, whenever he can see three cairns at once, by measuring the angles between them; or one cairn will be sufficient if he makes a triangulation and takes an azimuth observation. For many purposes probably a sufficiently accurate location can be effected by compass bearings on the cairns.

Much advantage will also be indirectly obtained from this survey by the exploration of trails and passes, as well as the discovery of minerals and other natural res-

cources.

Mr. McArthur has been engaged on the photo-topographic work in the mountains. His camera stations are fixed by subsidiary triangulations based on the stations of the main triangulation. Being thus relieved of the work of making a continuous triangulation, he has more time to devote to the accurate filling in of the topographic details. The advantage of the topographic method adopted is shown by the fact that an accurate survey on the scale of 1:20,000 is made with but a small party at the rate of 300 to 400 square miles a season. During last summer, deducting the time lost by smoke and storms, in 70 days Mr. McArthur covered 350 square miles, an average of 5 square miles a day. Capt. Wheeler of the U.S. Engineers in his report on the Geographical Congress states that in the plane-table surveys made in Europe the speed averages from one-half to one square mile per day, for surveys made on the scale of 1:20,000. These surveys are made in comparatively level country, and the method would be altogether impracticable in mountains, except at vast expense and difficulty. On the other hand, the photographic method is not well adapted to a level or a wooded country.

In connection with Mr. Drewry's triangulation, I beg to point out that all the distances depend upon the length of the steel band with which he measured his base The exact length of this band is not known, and there appears to be in Canada no means of finding it. This is an important matter, as year by year our surveys are extended further, and an inaccuracy in the standard measure affects all the work

done.

I need not speak here of the inspection and correction surveys, as they will be fully treated of by Mr. Dennis, under whose supervision they have been.

I have the honor to be, Sir,
Your obedient servant,
W. F. KING,
Chief Inspector of Surveys.

E. Deville, Esq.,
Surveyor General,
Department of the Interior.

No. 3.

REPORT OF OTTO J. KLOTZ, D.T.S.

COMPUTATION OF LIMITS OF RAILWAY BELT IN BRITISH COLUMBIA.

PRESTON ONT., 9th, December 1889.

Sir,—I have the honor to submit the following report.

The first part of the year was spent in finishing the astronomic computations of the previous season's work.

Thereafter I was engaged on the computation of the position of the limits of the

railway belt in British Columbia.

"Twenty miles on each side of said line" is a simple and unequivocal description of the railway belt. Its demarcation on the ground, however, irrespective

of mountains, is by no means so simple.

In 1885 and 1886 the Dominion Government had an accurate azimuth survey

made of the line of the railway through British Columbia.

This survey was adjusted to the astronomic determinations of latitude and longi-

tude, made for this purpose at Port Moody, Kamloops, Revelstoke, and Field.

From this adjustment resulted the position of the railway with reference to the section, township, and range lines of Dominion lands projected over the railway belt; and the position of every point of the line of railway from the neighboring north and east section lines became known.

The foregoing furnished the data of computation of the limits of the railway belt. The first step in the latter computation was to ascertain the position, with reference to the system of Dominion lands, of the extremity of the radius of 20 miles extending at right angles successively to the courses of the railway, and beginning

at each course.

From the azimuth of the chord of the line of railway was obtained the direction of the 20 mile radius. This was then resolved into its equivalent of latitude and longitude, in terms of townships, sections, and chains, and ranges, sections, and chains, respectively, due regard being had for the curvature of the earth. This latter result was combined with the known position of the corresponding point of the railway, and by a long and tedious computation evolves one of a series of points, referred to the co-ordinates of Dominion lands.

Many of these points will fall, however, inside of the railway belt, although distant 20 miles from the particular point of the railway line from which they

have been computed.

The railway belt resolves itself into this: "that tract of land lying on each side of the line of railway; the distance from any point on the limit of said tract to the nearest point on said line of railway shall be 20 miles."

When we take into account the curving of the railway, a little consideration will show that the extremity of a 20 mile radius at right angles to the railway will

not necessarily give a point on the limit of the railway belt.

The railway belt is the area covered by a radius of 20 miles moving at right angles to the line of railway on each side thereof; but in its motion following the various curves, it is continually swaying backwards and forwards in its general forward motion; thereby making complicated intersections on the limits of the railway belt.

These intersections must be computed ere surveyors can be sent to establish the

limits on the ground.

There are very nearly six thousand positions of termini of radii to compute for the railway belt in British Columbia corresponding with half that number of survey stations on the line of railway.

To give somewhat of an idea of the labor entailed in computing such points, a

copy of the abstract of the computation for one point is given.

BOUNDARIES OF 20 MILE BELT.

K = 1,600 chains.

STATION.	Bearing of Radius.	K Cos Z.	Corr.	K Cos Z. —Corr.	K Cos Z. +Corr.	K Sin Z.
121	347°·86	Chains. 1,564·26	Chains.	Chains. 1,564.04	Chains. 1,564·48	Chains. +336.30

In order to determine the latitude of the extremity of any 20 mile radius, we apply the vertical element K Cos Z after correcting it by the quantity given in the fourth column, headed Corr.

This latter quantity expresses in chains the distance that K Cos Z. falls below the parallel passing through the extremity of the radius, and is found by the formula:

Corr. = .00000196 (K Sin Z.)²

in which

K = 1,600 chains (20 miles) Z = azimuth of radius.

K Cos Z—Corr. gives the meridian ordinate to the north.

K Cos Z + Corr. gives the meridian ordinate to the south.

K Sin Z is made + when to the west, and-when to the east.

20 Mile Belt Computation—British Columbia. North Side.

Station No.	K Cos Z. —Corr Ch.	T. S. Ch.	Station T. S. Ch.	T. S. Ch.	K Sin Z. Ch.	Converg Ch.	R. S. Ch.	Station R. S. Ch.
121	1,564.04	3-2-45 · 96	27-6-48:96	31-1-14 42	+336:30	-1.13	0-4-11 · 17	18-0-22:01

Station reduced to Corr. Line.	Station				RESULT.				
	Jog Ch.	reduced to Corr. Line.	Converg Ch.	R. S. Ch.	Point in R. S. Ch.	S. T. R.	Mer.	Northing Ch.	Easting Ch.
18-0-21.88	67.16	17-5-36 · 03	— ·01	17-5-36 · 02	18-3-47 · 19	4-31-19	5	14.42	47.19

The following is an explanation of the nineteen columns of the Computation sheet:—

Column 1.—Gives the number of the azimuth survey station on the line of the railway.

Column 2.—Expresses in chains the meridian ordinate to the north.

Column 3.—In this, T. S. shows the nearest number of townships and horizontal tiers of sections greater than K Cos Z—Corr., and Ch. shows in chains the excess of 14 [PART II]

T. S. over K Cos Z—Corr.; or in other words, how far the northern extremity of K Cos Z—Corr. is from the northern limit of the section in which that extremity is situated.

Column 4.—This gives the position in latitude, expressed in terms of the system of Dominion lands, of the azimuth survey station on the railway; the S. indicating the horizontal tier of sections, beginning at the south side of the township, in which the station is situated; and the Ch. the number of chains it is distant from the north side of that tier of sections.

Column 5.—Is the addition (or subtraction) of the two preceding columns. If the sum of the chains is greater than 80°·50, 80°·50 must be subtracted and S.

reduced by one section.

Column 6.—Expresses in chains the easting or westing of the extremity of the radius from the survey station on the railway.

Column 7.—Expresses in chains the convergence of meridians with arguments,

distance of Q from base line, and K Sin Z.

Column 8.—Is the addition of the two immediately preceding columns,

expressed in ranges, sections and chains.

Column 9.—Gives the position in longtitude of the survey station on the railway, in terms of ranges, vertical tiers of sections, and chains west of the initial meridian.

Column 10.—Is the position given in column 9 reduced on the meridian to the correction line intervening between Q and station.

Column 11.—Gives the jog on the correction line at the reduced position of the

station.

Column 12.—Gives the position of the station referred to the north (south) side of correction line.

Column 13.—Gives the convergence of meridians for the distance expressed by

chains in the last column to bring it to Q.

Column 14.—Is the addition of the last two columns, and gives the position of Q in ranges, tiers of sections, and chains on the parallel of Q west from the initial meridian. The point Q is on the meridian of the survey station, and distant therefrom K Cos Z—Corr.

Column 15.—Is the addition of column 14 and column 8, and gives the position

(in longitude) of the point or extremity of the 20 mile radius on the belt limit.

In the example given, the interpretation of column 15 is: The point is distant from the initial meridian, measured westward along the parallel of the point, 18

ranges 3 sections and 47° 19.

We have now the position of the extremity of the 20 mile radius on the belt; expressed in latitude by giving the number of townships and tiers of sections from the first base line or International boundary, the chains given expressing the distance of the point south from the north limit of the tier of sections in which the point is situated; and expressed in longitude by giving the number of ranges, tiers of sections and chains from the initial meridian. Hence nothing remains to be done but to combine these expressions and give the distinctive number of the section, township, and range, in the system of Dominion lands.

The township number as given in column 5 for Q will be the same for the extremity of the radius; the number for the range will be greater by one than the range number given in column 15; for as the point is a certain number of ranges and sections west of the initial meridian, it follows that it must be in that range of the Dominion lands expressed by the number greater by one than the number in

column 15.

The number of the section is found by knowing the horizontal and vertical tiers in which the section lies, counting from the south and east of the township respectively.

Column 16.—This gives the particular section, township and range in which the

extremity of the 20 mile radius on the railway belt is situated.

Column 17.—Shows the initial meridian from which the ranges are numbered westward.

Column 18.—Gives the distance of the point from the north side of the section. Column 19.—Gives similarly the distance from the east side of the section in which the point is.

The computation of these six thousand points will occupy one person nearly a

year.

Hereafter those points which fall *inside* of the railway belt, for reasons already pointed out, will have to be eliminated; and the intersections of the line, described by the extremity of a radius of 20 miles, moving at right angles to the line of railway with itself be determined.

This will again entail considerable complicated work, ere full data can be given

to the surveyor for locating the limit of the railway belt on the ground.

There will undoubtedly be many parts of the limits of the railway beit impossible or at least impracticable to define on the ground, from the mountainous character of the country; yet in the computations every point must be determined, as no a priori elimination of any point can be made.

All of which is respectfully submitted.

I have the honor to be, Sir, Your obedient servant,

OTTO J. KLOTZ, D.T.S

E. Deville, Esq., Surveyor General, Ottawa.

No. 4.

DEPARTMENT OF THE INTERIOR, TECHNICAL BRANCH, OTTAWA, 17th December, 1889.

SIR,—I have the honor to submit my annual report regarding the examination and correction of surveys, and in relation to the general surveys of this branch under my charge.

The distribution of the season's field work having been completed, under instructions from you, dated the 9th of May, I proceeded to Winnipeg, reaching that point

on the 16th.

Before leaving headquarters the corrections to existing surveys, which it was proposed to effect during the season, had been divided as nearly as possible into four districts, and the parties who were to be engaged on this work were distributed as follows:—

The work in Manitoba and the eastern portion of Assiniboia was allotted to Mr. John McAree, D.T.S.

The investigations and corrections on the Second Initial Meridian, and in town-

ships adjoining the same, were allotted to Mr. Louis Gosselin, D.L.S.

A re-survey of a portion of the Fourth Initial Meridian and of townships comprising subdivision contract No. 9 of 1886 was undertaken by Mr. E. W. Hubbell, D.L.S.

Mr. D. L. S. Miles was to re-survey a portion of the Fifth Initial Meridian, and to effect other corrections required in the south-western portion of the Territories,

Instructions were also issued to Mr. D. L. S. Reid covering required corrections

to existing surveys in the Prince Albert District.

At Winnipeg I was joined by all the above named gentlemen, and I remained there until the 24th May, the time being spent in preparation of instructions for the surveyors who were to effect correction surveys in Manitoba and the eastern portion of Assiniboia, in arranging for the manufacture and shipment of the iron bars needed in marking the season's surveys, and in the purchase of certain horses, supplies, etc. Further instructions were also issued at this time to Messrs. McLatchie and Belanger, Dominion Land Surveyors, in relation to the work they had in hand.

Proceeding to Calgary I arrived there on the 25th May, this point being my headquarters for the season. I was very kindly given office room in the office of Mr.

Wm. Pearce, Superintendent of Mines.

I now issued the necessary instructions to Messrs. Miles and Hubbell, who had

accompanied me to Calgary, and arranged for the transport required by them.

I remained in Calgary until the early part of June, when I returned to Winnipeg, meeting Mr. D. L. S. Gosselin at Moosomin for the purpose of giving him some

further explanations regarding his instructions.

After my return to Calgary, and in the latter part of June, I made several trips to Canmore, in relation to surveys needed at that point, and also accompanied Mr. Drewry to Morleyville, and consulted with him and Mr. McArthur in relation to the employment of their parties during the delay, owing to dense smoke, in the work they had in hand.

Early in July I visited Mr. Miles, who was at work on the Fifth Initial Meridian in the Porcupine Hills, and after returning to Calgary I began the survey of "the old Mission Trail," lying south of the Elbow River and west of Calgary. I carried on this work from time to time during the season when office work permitted.

On the 1st of August I left Calgary and proceeded to Churchbridge, a point on the Manitoba and North-Western Railway, near where I met Mr. Gosselin, and after consulting with him regarding difficulties met with in carrying out his instructions, I issued new instructions for his guidance.

Leaving Calgary again on the 5th of September, I proceeded to Medicine Hat: there I met Mr. Hubbell, and accompanied him to the mouth of the Red Deer River,

where he was then at work on the 5th Initial Meridian. Returning to Medicine Hat I made a trip in company with Mr. Pearce to the Kootenai, or "Waterton" Lakes, and there met Mr. Miles, who was engaged in subdividing the available portions of Townships 1 and 2, in Range 29, west of 4th Initial Meridian, these being the townships in which the discovery of petroleum had been made, and in which a large number of claims had been staked out.

On my return to Calgary from the last mentioned trip I remained in the office a few days, and then proceeded north and completed a re-examination of townships comprising subdivision contracts numbers 7 and 14 of last season. A special report

in regard to this examination will be submitted.

I returned to Calgary on the 11th of October, and remained there until the 15th, when I left for British Columbia. At New Westminster I met Messrs. Kirk and Vicars, D.L.S., and discussed with them certain matters relating to the surveys they were then engaged on in that district. I have already reported to you in reference to this and other matters attended to while in British Columbia.

I reached Calgary on my return trip on the 20th, and leaving again on the morning of the 22nd I returned to Ottawa, reaching home on the 27th, having during

the season travelled some 7,000 miles by rail, and 1,050 miles with horses.

While at headquarters at Calgary during the summer my time was fully occupied in attending to correspondence and the general survey matters requiring attention. These need not be referred to here, as full reports were duly forwarded from time to time during the season.

The reports of the gentlemen engaged on correction surveys, which are being forwarded to you direct, will give full particulars regarding the work accomplished

by them.

EXAMINATION OF SURVEYS.

Eleven subdivision contracts were let this season, covering 28 townships. These, together with some 17 townships in subdivision contracts of last year, which were completed too late to allow of an examination being effected during that season, made 45 townships in which it was necessary to carry on examinations or verification surveys. This work was accomplished by Messrs. Miles, McAree, McLatchie and Reid, D.L.S. The full reports regarding these examinations, accompanied by the usual illustrating sketches, and field notes, will be duly forwarded.

From general reports received I am glad to be able to say that the work in the subdivision contracts of this season seems to have been well and carefully performed

The townships subdivided this year, excepting those in contracts 1 and 2, east of Winnipeg, are all well adapted for settlement. The townships covered by contract number 5 in South-western Manitoba are somewhat broken, but being on the line of the Souris branch of the Canadian Pacific Railway, are likely to be in demand for settlement at an early date.

Contracts numbers 6, 7, 8, 9 and 14 covered townships at Beaver Hills, on the line of the extension of the Manitoba and North-Western Railway, and the district

subdivided is a very fine one.

The townships comprising contract 3 are situated on the Milk River ridge, south of Lethbridge. They are somewhat broken; but being on the line of the proposed extension of the North-West Coal and Navigation Company's Railway, and in the vicinity of the rapidly growing Mormon colony, they are likely soon to be in demand

either for settlement or grazing.

It is popularly supposed that the larger portion of the desirable part of the North-West Territories has been subdivided; at least, I have heard such opinions expressed. This is of course an erroneous idea: a glance at our general map of Manitoba and the Territories will show that, while the belt of country extending for some distance on both sides of the main line of the Canadian Pacific Railway has been subdivided, and the larger portion of the remainder of the country south of the North Saskatchewan River has been outlined into townships, only a comparatively small portion of the Northern or Saskatchewan district has been subdivided.

[PART II]

This latter district is particularly well adapted for settlement, there being in most parts an abundance of wood and water, and the soil in the larger portion of the district is excellent.

The Northern or Saskatchewan portion of the Territories will make rapid strides in the way of settlement so soon as the railway communication, which is about to be afforded by the construction of the Regina and Long Lake Railway, is avail-

able for the transport of immigrants and their effects.

The centres now existing at Prince Albert, Battleford, Edmonton, and other points in this district will grow rapidly, and an active demand for agricultural holdings will follow, necessitating the subdivision in the near future of a number of

townships in that part of the Territories.

The past season was a very unfavorable one for surveying operations. During June, July and August heavy fires raged throughout the timbered portion of the Rocky Mountains; and at times the smoke was so dense on the eastern slope of the mountains, and as far east as the 4th Initial Meridian, that it was impossible to see any distance, and many of the parties working in the western district were seriously delayed from this cause.

Throughout the greater portion of Manitoba and the Territories the rainfall was very light, and as a consequence great scarcity of water was experienced. This was notably the case in that portion of the country traversed by the section of the 4th. Initial Meridian, upon which Mr. Hubbell was working. Surveying parties have many hardships and inconveniences to put up with, but the most serious of all is the want of water. Mr. Hubbell's report shows the suffering experienced by his party from this cause, and credit is due to him for having successfully carried on his operations in spite of such obstacles.

Mr. Gosselin was also somewhat retarded owing to the want of water; and the extreme dryness of the season will be readily understood when attention is drawn to the fact that, when the original survey of the 2nd Initial Meridian and adjoining townships was being carried on, much inconvenience was experienced owing to

the numerous swamps and great quantity of water everywhere.

In accordance with your authority all the subdivision surveys of this season were

marked with a post and mound only, the tin being discarded.

The posts used are somewhat larger than those used with the tin, and the necessary marking is put on the post itself with a file or cold chisel. The great trouble and complaint regarding inability to distinguish the positions of posts, owing to the tins having been lost or removed, will now be obviated.

Although the first cost of these larger posts is slightly greater than the posts and tins, I feel confident that the surveys will be much more permanently marked

by using the larger posts.

I would respectfully draw attention to a suggestion made to me by Mr. D. L. S. McLatchie in one of his reports during the summer, and in regard to which he has, I understand, reported to you, viz. that iron posts and mounds should be placed at all corners in wooded country, where at present wooden posts and bearing trees are placed. I am very much in favor of the adoption of Mr. McLatchie's suggestion. Its advantages are obvious. The larger portion of the wooded district of the Territories is covered with timber of comparatively small growth, and this timber is subject to almost annual fires, which in many cases completely destroy the wooden posts and bearing trees.

The iron posts and mounds would not be affected by these fires; and the additional cost, if any, in first surveying a township, is trifling in comparison with the

value of the permanent marking secured.

Mr. McLatchie found great difficulty in locating many of the points marked by posts and bearing trees on some of the old lines examined by him; and during the past two seasons we have re-surveyed townships owing to the first posts and bearing trees being entirely obliterated by fires.

It seems like formal repetition to speak each year of the progress noted in the prominent points in Manitoba and the Territories, and in the country generally; but

this progress is so marked and noticeable, particularly to those of us who visit the country annually, and who have seen the wonderful—for they are really wonderful—strides made during the past fifteen or sixteen years, as to warrant mention.

In those places passed through in travelling along the main line of the Canadian Pacific Railway, and also on the branches of this road, and on the Manitoba and North-Western Railway, each year sees a marked growth and improvement—a few new buildings here, graded streets and sidewalks there, new faces at all points; and a general air of solid growth is fast removing the appearance of newness, which many centres had not long since.

The same may be said of the country generally. I see a large portion of both Manitoba and the Territories during each of my annual visits, and have been struck during the last two seasons with the general improvement in the character of farm

buildings, fences, etc.

In closing this report I would bear testimony to the satisfactory manner in which the correction surveys were performed by those gentlemen working under my immediate instructions, and also to the ready and prompt way in which all instructions issued by me to any of the Surveyors employed by the Department were carried out.

The usual schedule shewing correction surveys effected during the season is appended.

I have the honor to be, Sir, Your obedient servant,

> J. S. DENNIS, Inspector of Surveys.

E. Deville, Esq., Surveyor General, Department of the Interior. SCHEDULE of Correction and Examination Surveys performed during Season of 1889.

Township.	Range.	West of	By whom Performed.	Description of Work done.
2nd In	itial M	eridian	L. Gosselin	The Meridian was re-traced and re-measured from the north boundary of Township 18 to north boundary of Township 27, and a portion of each township chord closing on the Meridian was re-surveyed and closings checked; the closings of certain section lines in each township were also checked.
18	31	1	do	Posts and mounds on both sides of Correction Line moved to correct
18 18 33 34	32 33 1 1	1 1 2 2	do do do	position. do do do do Posts on 2nd Initial Meridian changed from old to new system. do do do
4th Ini		eridian	E. W. Hubble	The Meridian was re-traced and re-measured from the north boundary of Township 20 to the north boundary of Township 48, mounds were rebuilt, and mounds of old system removed. The posts and mounds were offsetted between the 11th Base and 11th Correction Line to provide for jog in Meridian.
$\frac{21}{22}$	29 29	3 3	do	This township was re-subdivided.
42	1			do do The north and south boundaries of this township surveyed and
42 A 49	1	3	do	marked Northern boundary surveyed and marked. Subdivision of portion of township south of North Saskatchewan
44	4	3	do	River. River lots surveyed.
$\begin{bmatrix} 44 \\ 22 \end{bmatrix}$	5 4	3	$egin{array}{ccc} \operatorname{do} & \ldots & \ldots & \ldots \\ \operatorname{John} \operatorname{McAree} & \ldots & \ldots & \ldots \end{array}$	do do Eastern boundary surveyed.
18	5	1	do	Northern do
19 18	10 10	1 1		Southern do Northern do
6	3	E of 1		Eastern do
8	$\frac{25}{c}$	W of 1	do	do do
13	$\frac{6}{10}$	1 1	do do	do do Portion of township subdivided.
16	22	1	do	Lake in Sections 27, 33 and 34 traversed.
19 Main tr	26	1	do	Portions of south half of Sections 13 and 14, originally in Indian
	nation		do	Reserve, surveyed and marked. Posts omitted in original survey of this trail were placed.
16	16	1	do	Examination of reported errors in positions of posts
5th Init	$^{ m tial}$ $^{ m Me}$	ridian	C. F. Miles	This Meridian was re-surveyed from the 7th to the 3rd Bases.
12	30	4	do	Township re-subdivided.
8	22	4	do	N.W. 4 Section 3, formerly in Blood Indian Reserve, surveyed.
6 5	$\frac{1}{30}$	5	αο	Road surveyed in Sections 18 and 19.
7	28	4 4	do	Portion of township subdivided. Sections 7 and 18, formerly in Piegan Indian Reserve, surveyed.
4	28	4	do	Eastern boundary re-surveyed.
2	25	4		Interior Meridian do

J. S. DENNIS,

Inspector of Surveys,

No. 5.

REPORT OF J. McAREE, D.T.S.

CORRECTION SURVEYS IN MANITOBA, 1889.

WHITEMOUTH, MANITOBA, 23rd December, 1889.

SIR,—I have the honor to submit the following general report of my past season's work on Correction and Inspection Surveys in the Province of Manitoba.

Upon my arrival in Winnipeg on the 23rd of May I reported to Mr. Dennis, and began preparations for the trip to Pine Creek, on Lake Winnipegosis, to lay out lots

for the settlers there.

After obtaining the best information available, I decided to go by the west shore of Lake Manitoba. Accordingly, with two horses, a cart and buckboard, and accompanied by one man, a start was made from Winnipeg on 28th May, and, passing through Portage la Prairie and Westbourne, we took the trail along the west shore of Lake Manitoba and arrived at Manitoba House on 4th June. From Sandy Bay the trail was in a very bad condition, there being no choice between the loose sand of the lake shore and the boggy soil of the track inside. On our return some five weeks later the inside track was tolerably good. No canoe being obtainable at Manitoba House, we took passage on a boat of the Hudson's Bay Company, going to Pine Creek with supplies for the post there, and reached our destination on 11th June, having met with unfavorable winds during most of the voyage. The settlers at Pine Creek are French Halfbreeds, chiefly from Duck Bay, Lake Winnipegosis, or from St. Laurent, Manitoba, and Indians on the reserve. All subsist, to a greater or less extent, by hunting and fishing, and the employment afforded by the fur trade, although some have cattle, and nearly all cultivate some potatoes.

Marshy land, yielding an inferior grass and hay, is found in considerable areas along Pine Creek, and a large amount of stock might be kept. These open, grassy tracts, which appear in nearly every instance to be of a marshy character, are the result of the saline quality of the soil, in every case due probably to the percolations from brine springs. The vents of some of these springs were pointed out in the marsh at one place by the natives. The springs were then dry, but I was shown a sample of water from a shallow excavation in the cellar of one of the houses, which, although quite clear and icy cold at that season, tasted like a strong solution of common salt.

Outside the grassy areas, all is forest, consisting of poplar, spruce, white birch

and tamarac of good size. There is no true prairie.

The soil of the woodland appears to be very good, and would no doubt produce

abundant crops under cultivation.

Pine Creek itself, from its mouth to the rapids a little above the Hudson's Bay Company's post, is a somewhat sluggish stream, with an average width of about two chains. It enters Lake Winnipegosis through marshy land, which extends along the left bank with gradually diminishing breadth, almost to the rapids, but ends on the right bank before the south boundary of the Indian Reserve is reached. Above the rapids the stream is about a chain wide. The Hudson's Bay Company have a trading post at Pine Creek, as have also Messrs. Hartmann & Co. Bears, other fur-bearing animals, and moose, are still comparatively plentiful in the adjacent territory. Revd. Father Dupont has for several years resided here in the capacity of parish priest and missionary to the Indians, and during the past winter has got out hewn logs for the erection of a church, which was to have been built this summer. He has had a school for the Indian and Half-breed children in operation a considerable time. The reverend gentleman has the only garden. The cultivation of grain has not yet been attempted in the settlement.

I found nine lots to be sufficient for the requirements of the settlers at present. There are a greater number of families than this, but owing to the fact that there are three natural frontages, viz., the shore of Lake Winnipegosis, and the two banks of Pine Creek, the houses were so crowded that in some instances I found it impossible to lay out the lots, so that no single lot should have more than one house upon it. This is easily seen from the plan.

Little or no dissatisfaction was caused, however The lots have an average area of about 160 acres, with a normal depth of about 160 chains; they are staked off along a base line in the usual manner of river lots, and the system abuts upon the Indian Reserve, with the usual road allowance of 1 chain between the two surveys.

Besides laying out the lots, I located the trail across the settlement.

The survey having been completed, being uncertain when there would be a chance of returning to Manitoba House by boat, and being unable to make any satisfactory arrangement about a canoe, I engaged a team, and taking the Indian trail towards Riding Mountain, by the west of Lake Dauphin, I arrived at the Half-breed settlement on Turtle River, a few miles from the south end of Lake Dauphin, where I expected to get conveyance to Manitoba House. All the horses of the settlement were absent, however, and I was obliged to wait several days before starting again. Manitoba House being at length reached, we resumed our journey with our own horses which had been left in charge of a settler, and reached Winnipeg on 10th July.

Procuring three additional horses and carts, and otherwise completing my outfit, and being now joined by my assistants, I left Winnipeg on 15th July for the regular work of the season. I had three assistants, one laborer and a cook, five horses, four

carts and a buckboard.

My first work was to run the east boundary of Township 6, Range 3, east of Principal Meridian. We found that this line had been run at one time, and as the land was occupied I, according to my instructions, did not change any of the

corners, but put in new posts.

My next work was putting iron posts in the mounds along the (west) side of the trail from Morris to the international boundary, surveyed by Mr. McPhillips, D.L.S., in 1886. These posts were of the length required for section corners, being made of 1½ in. gas pipe. They are numbered consecutively along the trail, beginning at Morris. In addition to its number each post bears the letter "R" on the side next the trail. The number of the post at the international boundary is "124," No. 1 being in the initial mound on the west side of the main street of Morris.

My next work was to survey the east boundary of Township 4, Range 6, west of Principal Meridian. This line I found had been previously run; I therefore did not

change any of the corners, but ran it over again, and put in iron posts.

Next I proceeded towards Township 9, Range 7, west of Principal Meridian, where the east boundaries of Sections Nos. 5, 8, 17, 20, 29 and 32 had to be run. Coming to the southwest quarter of the township, however, we found the whole country a brulé, growing up with a dense growth of poplar, willow, &c., in which we could find no post, line, or mark of survey. It being evident that a very considerable amount of work would be required to establish the starting point for our line, so much of the survey of the township having been obliterated, I decided to let the work stand, and report the state of affairs to the Inspector of Surveys, and proceed with some other work. In reply the Inspector ordered me not to go on with the work.

From Township 9, Range 7, west of 1st Principal Meridian, we went to Oak Lake, to run the east boundary of Township 8, Range 25, west of 1st Principal Meridian. On account of the dense growth of tall reeds on the east boundary of Section 1 we were obliged to desist and leave the line unrun; we ran it, however,

later in the season, while en route to the work on the Antler creek.

In order to give the weakest of my horses a rest, I had left my main camp some thirteen miles south of Brandon, and made a flying trip to Oak Lake. Returning from Oak Lake we proceeded via Brandon, Carberry and Gladstone to Woodside, on the M. and N. W. Ry. and began work there, to complete the subdivision of

Township 13, Range 10, west of Principal Meridian. A good deal of time was consumed in recovering old lines and monuments, both when starting the work and when connection had to be made with old work. The work was additionally tedious on account of the marshy nature of the ground, and we desisted before the lines were all run, intending to finish on our way from the west later in the season when the marshes would be frozen over.

Our next work was to run the north boundary of Township 18 and the south boundary of Township 19, in Range 10, west of Principal Meridian. Returning from this we camped near the north-east corner of Township 13, Range 10, and completed the survey of it. Next we proceeded to examine Townships Nos. 5 and 6, in Ranges Nos. 31 and 32, west of Principal Meridian, being contract No. 5 of this season, halting on our way at Oak Lake to complete the survey of the east boundary of Township 8, Range 25, west.

Having completed the examination of contract No 5, we went north by the Moosomin Trail, through Moosomin and Fort Ellice to Todburn, and ran the east boundaries of Sections 13 and 14, Township 19, Range 26, west, south of the Indian Reserve.

Next we moved to Strathclair and traversed the lake on Sections 27, 33 and 34, in Township 16, Range 22, west of Principal Meridian. In the subdivision of the township this lake had not been surveyed, but was described as a dry lake bed. Then we took up our march for Township 16, Range 16, west of Principal Meridian, which township it was stated contained numerous errors in the subdivision survey, which I was instructed to investigate. I made an examination by chaining over a number of lines, the result of which was that the reports of inaccuracies were fully justified. Most of these errors might be corrected, to a considerable extent at least, without disturbing any of the settlers in the improvements they have made. Details will be found in my special report of the examination in question. The Hungarian immigrants settled in this township appear to be thriving, and are evidently an intelligent and industrious people.

Our next work was to survey the north boundary of Township 18, Range 5, west of Principal Meridian. The line had been run, but not very accurately, and we therefore made new mounds throughout, there being no vested interests in the way of improvements on the land to be interfered with.

Next we proceeded with the examination of the contracts of 1888, for the subdivision of Townships 21, in Ranges 3 and 4; Townships 22, in Ranges 3, 4, 5, 6, and 9; and Township 23, in Range 5, all west of the Principal Meridian.

I also resurveyed the east boundary of Towhship 22, Range 4, west of Principal Meridian. While engaged in this examination work I was joined by N. R. Freeman, D.L.S., who had received instructions to assist me. Thereupon I left the completion of the work to him, viz., the examination of Townships 21, Ranges 3 and 4, of Township 22, Range 9, and to finish in Township 22, Range 4, and Township 23, Range 5.

I then proceeded to Winnipeg, and sold my horses and carts by auction, according to instructions, before proceeding by rail to Whitemouth to examine certain contract surveys there. One horse had become so emaciated through some ailment that he had to be abandoned at Mr. J. Crawford's, on Section 12, Township 21, Range 4, west.

Having disposed of my transport outfit, I went to Whitemouth to make an examination of certain townships in survey contracts in that neighborhood. This work will be finished in a day or two, when I shall return to Winnipeg to disband my party.

The season has been a fine one for camping out, owing to the slight rainfall; and the trails, owing to the same reason, were generally in good condition. Nearly all the ponds and sloughs in the country are dried up, and the lakes and streams have reached a lower level than has been seen for many years. On the open prairies of Manitoba the crops have been very light as a rule, while in the timbered or partially timbered parts they have been fairly good.

This disparity was no doubt due to the more moist condition of the soil in the wooded country, derived from the snow which drifts in the brush, whereas on the open prairie it blows away.

I shall have the honor to transmit to your office, as early as possible, the returns

of my surveys, consisting of plans, field notes, reports and accounts.

I have the honor to be, Sir, Your obedient servant,

JOHN McAREE, D.T.S.

E. DEVILLE, Esq.,
Surveyor General,
Ottawa, Ont.

No. 6.

REPORT OF L. GOSSELIN, D.L.S.

CORRECTION SURVEYS ON AND NEAR 2ND INITIAL MERIDIAN.

Quebec, 23rd November, 1889.

Sir,—I have the honor to submit the following report of my operations during

the past season.

I left Quebec on the 25th of May for Winnipeg, where I had to receive my final instructions. I spent two days in that city in order to buy the part of my outfit that could not be obtained in Wapella or Moosomin; I also hired there the two men needed to complete my party, and proceeded then to Wapella, where I bought the rest of my outfit and my supplies. Some further delay was caused by the non-arrival of my outfit from Winnipeg until the 10th of June, at which date I left Wapella and proceeded to the north-west corner of Township 18, Range 33, west of the Principal Meridian.

After a few days work on this correction line, I saw that both sides of it would require re-survey, instead of only one side as set forth in the memorandum given me with my instructions. Being doubtful what to do, I reported the matter to Mr. J. S. Dennis, Inspector of Surveys, and meanwhile proceeded to Township 20, Range 33,

in which I effected the necessary corrections.

I then began to work on the 2nd Initial Meridian, in Township 21, but after a few days I was obliged to abandon that also, being convinced that I could not carry out my instructions, because the existing errors differed so much from those mentioned therein. Having received an answer from the Inspector of Surveys relative to the corrections to be made on the 5th Correction Line, I returned there and moved the posts and built new mounds on both sides in Ranges 33, 32, and part of 31. The owner of Section 34, Township 18, Range 31, would not allow me to move the posts, but the changes to be made there were very small.

During this survey, two of my assistants were for a week unfit for work.

According to new instructions received I then returned to the 6th Base Line, and continued the re-survey of the 2nd Meridian as far as Churchbridge, on the Manitoba and North-Western Railway. Finding that I met with the same difficulties as before in carrying out my instructions, I telegraphed to the Inspector of Surveys requesting

him to meet me at Churchbridge if possible.

He came on the 4th of August, and after hearing full explanations, gave me fresh instructions how to proceed. Following these, I re-surveyed the 2nd Meridian again, from the 6th Base Line going north, running a part of every township chord and some subdivision lines in every township, always from the posts of the original survey on the 2nd Meridian, so as to be able to understand the exact position of affairs on the ground.

I was obliged to abandon this work however at Stony Creek, in Township 27, having to travel some nine miles from my camp to the work in consequence of the

scarcity of water.

I then started for Fort Pelly, to change the posting from the old system to the

new on the 2nd Initial Meridian, in Townships 33 and 34.

After having completed that, not being able to procure any supplies at Fort Pelly except flour and bacon, I went back to Wallace, where I learned from the Postmaster that I could now find some water in one place in Stony Creek, so I returned there to continue the work abandoned some weeks before.

From my camp there I re-surveyed the 2nd Meridian in Township 27 and in part of Township 28, where I was obliged to give up work a second time for want

of water, having six or seven miles to walk to get to work. I expect that in the remaining townships up to 33 the same errors will be found to exist as in those I examined.

Having no instructions for other work I went to Whitewood, and thence to Moosomin, where I had my horses and outfit sold by auction, this being the only

place where they could be disposed of to advantage.

To account for the slowness of my operations I would draw your attention to the fact that I had to find all the old posts, which sometimes involved a great loss of time, to open all the east and west lines, and very often the meridian line, and also to do much travelling.

The summer has been so dry that if I had not been supplied with water by settlers I should not have been able to continue the survey. I was obliged very often

to camp a long distance from my work.

I reached Moosomin on the 16th of October and left that place for Winnipeg on the 18th.

I have the honor to be, Sir, Your obedient servant,

LOUIS GOSSELIN, D.L.S.

E. DEVILLE, Esq., Surveyor General, Ottawa.

No. 7.

REPORT OF E. W. HUBBELL, D. L.S.

EXAMINATION AND CORRECTION OF SURVEYS.

OTTAWA, ONT., 11th December, 1889.

Sir,—I have the honor to submit the following general report upon my operations for the past season.

In compliance with your instructions dated 7th May, 1889, I reported myself to Mr. J. S. Dennis, Inspector of Surveys, with whom I proceeded to Winnipeg,

arriving there on the 16th.

On the 18th I received further instructions from Mr. Dennis to retrace, re-measure and offset the 4th Initial Meridian, making corrections where necessary, and to

inspect and correct certain townships west of the 3rd Initial Meridian.

Leaving Winnipeg on the 19th, I arrived at Medicine Hat the following day, where I completed my party and the greater portion of my outfit, and on the 25th, in company with Mr. Dennis, I proceeded to Calgary, where I received the remainder of my outfit and shipped it to Medicine Hat.

We were delayed at Medicine Hat for some time awaiting iron posts, which I

was informed had been shipped to me from Winnipeg on the 21st.

The posts not having arrived at Medicine Hat on the 30th, I telegraphed Mr. Dennis at Calgary to that effect, who instructed me that if they did not arrive by the 31st I was to leave without them and proceed with my work. As they did not come to hand on the date specified we accordingly left Medicine Hat on the 1st June, and arrived at the forks of the Red Deer and Saskatchewan Rivers on the 6th.

Here we experienced considerable difficulty in crossing our outfit, both on account of the rapidity of the current, the high water at the time, and the unsuit-

able character of the means for crossing.

After leaving the forks our progress was retarded in some measure by scarcity

of wood and water.

I arrived at the north boundary of Township 48, where I commenced operations, on the 22nd.

Í was unable to obtain a good observation for azimuth until the 24th, owing to the dense smoke; this prevailed more or less during the whole summer, and was

a great obstacle to rapid progress.

Having obtained an observation, I found the azimuth of the meridian north of my work correct. On working south from this point, I discovered the greater number of mounds previously made to be slightly incorrect, and these, according to instructions, we destroyed, placing new ones in proper position.

This was done in Townships 43 to 48, inclusive, and in some others where two rows of mounds existed, one being of the old system of survey. On arriving at the eleventh base I found an error in azimuth of about two chains, which I corrected

according to instructions, by leaving it on the eleventh correction line.

Leaving the eleventh base and working south towards the forks, we found no wood whatever and great scarcity of water, the latter owing to the exceptional and continued drought, which was only broken by one rainfall during the summer. In consequence of this we experienced extreme difficulty and inconvenience in proceeding with our work as quickly as we otherwise would have done, inasmuch as we were obliged to locate our camp where water could be obtained, and had to travel many miles every day between camp and the point of operation.

miles every day between camp and the point of operation.

Again, the effect of the protracted drought upon the ground was such that the surface was warped into hummocks in many places, and broken open into wide deep cracks in others, so that travelling by buckboard, and even on horseback, was rendered

tedious and unsafe.

On one occasion my buckboard, in which I was often obliged to carry four persons, was broken down by pitching into one of these cracks; and owing to the roughness of the ground our horses were badly galled by the constant chafing of the shafts and harness.

Adverting to the character of the country where we carried on these operations, I may say that the soil generally possesses good agricultural qualities, being a

rich black loam, varying to sandy loam, with clay subsoil.

From Township 41 I was compelled to send my cook (the only available man) to Medicine Hat, a distance of 200 miles, for provisions. But, he losing his way and meeting with an accident which very nearly had fatal results, I did not see him again for fifteen days.

Having completed the work to the forks, on the 1st September we recrossed the river taking our outfit on rafts specially built for the purpose. This crossing proved to be much easier than that on our way north, owing to the extreme lowness of the

water in the river.

Leaving my party at the forks in charge of Mr. O'Keeffe, my assistant, to make repairs to the outfit, of which it stood greatly in need, I proceeded to Medicine Hat as pre-arranged by Mr. Dennis, and, accompanied by him, I returned to the forks and together we made an examination of work in Township 21, Range 29, west of the 3rd Initial Meridian.

After the departure of Mr. Dennis on the 10th September, we finished work on the 4th Meridian and proceeded to inspect and correct the subdivision of Townships 21 and 22, Range 29, west of the 3rd Initial Meridian.

We commenced the subdivision of Township 21 on the 16th of September by running the north boundary. The western two and one half miles are cut up with large coulées, which made chaining over this part impossible.

The eastern boundary of the township was then resurveyed to locate the southeast corner of the township where an iron bar was found in the drifting sand hills.

The southern part of the township is of such a sandy character that the mounds retain their form but a short time, and for this reason few of the old posts and mounds were to be found. The sand hills are covered in places with bluffs of cherry and willow scrub. The northern part is good agricultural land, being a black loam with clay subsoil.

This township was corrected according to instructions; posts were moved and new mounds built wherever they were found to be incorrect.

On the 3rd October we commenced the correction of Township 22 by running easterly across the township from the north-west corner of Section 19; this line runs through immense coulées and ravines, rendering chaining impossible, and necessitating a series of offsets and trigonometrical calculations. The subdivision of the remainder of the township was then proceeded with and necessary corrections made. Progress in this township was very much retarded owing to deep coulées and ravines, which extend from the South Saskatchewan and Red Deer Rivers for miles; work was also much hindered from having to make 18 crossings of these rivers with the lines surveyed.

No water is to be found in Township 21, but several small springs feed the river in Township 22. These townships are well adapted for grazing purposes, as was to be seen from the condition of a large herd of cattle and horses belonging to Messrs. Palmer and Carre who are located at the forks. These animals destroy mounds almost immediately after they are built, and for this reason I would respectfully recommend that posts and pits be substituted in any further corrections of old surveys that may be necessary in this locality. A number of river lot mounds found in Township 22 were destroyed according to instructions.

Before completing work the rivers were filled with floating ice, and finally frozen over on the 8th November. As the season was getting far advanced and the days of short duration, I concluded to stop field operations for the year. I left the forks for Medicine Hat on the 12th November, in the midst of a heavy snowstorm which

lasted three days: arriving at Medicine Hat on the 15th, I pitched camp and awaited

remittances from Calgary, which arrived on the 18th.

After paying off the party on the following day, and having stored my outfit with Messrs. Tweed and Ewart, I left for Ottawa on the 20th. I am now engaged making the necessary plans, notes, &c., of the various correction surveys intrusted to me, which will be forwarded to you with all possible despatch.

I have the honor to be, Sir, Your obedient servant,

E. W. HUBBELL, D.L.S.

E. DEVILLE, Esq., Surveyor General Ottawa Ont.

No. 8.

REPORT OF EDGAR BRAY, D. L. S.

SURVEY OF TOWNSHIP OUTLINES.

Dauphin Lake, 15th December, 1889.

SIR.—I have the honor to forward the following report of the work performed by me up to the 14th December 1889.

I left home on 13th September and arrived in Winnipeg on the 16th, where I pur-

chased the necessary supplies and camp outfit and shipped them to Strathclair.

I proceeded with my party to Strathclair on the 24th, but the bulk of my outfit

did not arrive until the 28th.

While at Strathclair I bought four horses, and, as I could not obtain any carts, I was compelled to take a waggon. I also engaged two teams to freight my supplies to the Dauphin Settlement.

We arrived at McIntosh's store on 3rd October and there arranged for and stored my extra supplies, &c. In this settlement I bought a cart, which I had repaired. It

has been very serviceable.

On 7th October we left for the corner of Township 24, Range 20, west of the Principal Meridian, and found that a road would have to be cut through some woods. Owing to this, and to the entire absence of water, it was not until Monday the 14th October that we began work on the 7th Base Line. I may say here that almost the only places where water is found are in Valley and Drifting Rivers. This want of water greatly delayed the survey, as it compelled us to walk long distances to and from our work.

The work performed to date comprises the outlines of Townships 25 and 26, in Ranges 21 and 22, and the 7th Base Line across Range 23, in all 66 miles of line.

Tp. 25, R. 21.—Along the 7th Base Line there is excellent soil, and in the remainder of the township good land is plentiful. Valley River runs through the north westerly sections of this township, and along the river some light sandy land is found. Except a small area in the south-west corner, this township appears to be wooded with poplar and, in some places, spruce; but a considerable portion of the timber has been killed by fire.

Tp. 25, R. 22.—The southerly and south-westerly sections of this township consist of a very scrubby prairie, called here, "Gilbert Plains." The balance of the township is pretty well covered with woods of small poplar and scrub, which here been mostly killed by fire. The soil is nearly all first rate being a sandy loam with a clay subsoil. Valley River enters the township in Section 7, and flows north

easterly, making its exit in Section 25.

Tp. 26, R. 21, has some open country near Valley River, but in all the other sections it appears to be wooded with poplar and small bluffs of spruce, a large quantity of which has been killed by fire. Valley and Drifting Rivers run through portions of this township, the former in the south east and the latter in the north. The soil is of fair quality, except along Valley River where sand is occasionally met with.

Tp. 26, R. 22, is mostly good land. Poplar and spruce timber covers the northerly sections of the township, while the remainder is mostly covered with small poplar and scrub now nearly all dead. Drifting River flows easterly through the north-easterly sections of this township.

Tp. 25, R. 23, appears to be excellent land and lies mostly in Gilbert Plains. Scrub is very plentiful and some timber was found. Valley River runs easterly

through the township, along which some light sandy land was seen.

Tp. 24, R. 21, is probably half woods and half scrubby prairie, the woods

covering the easterly half. The soil so far as seen was of excellent quality.

Tp. 24, Ranges 22 and 23. Scrubby prairie with a first class soil of loam, and in most cases a clay subsoil. The surface is slightly rolling with mostly long gentle slopes, giving good drainage. Dead fallen timber is frequently found, but live woods were not visible from the 7th Base Line.

I have the honor to be, Sir, Your obedient servant,

EDGAR BRAY, D.L.S.

E. DEVILLE, Esq., Surveyor General, Ottawa, Ont.

No. 9.

REPORT OF J. McLATCHIE D. L. S.

TOWNSHIP OUTLINE SURVEY.

DEVIL'S LAKE, ASSA. 10th December, 1889.

SIR,—I have the honor to submit the following report of outline surveys performed by me during the past season in the District of Assiniboia, in the North-West Territories.

The townships outlined were Townships 29 and 30, in Ranges 9, 10, 11, and 12, situate at Beaver Hills, Townships 31 and 32, in Ranges 5, 6, 7 and 8, and Townships 29 and 30, in Ranges 4 and 5, in the vicinity of Devil's Lake, all being west of the Second Initial Meridian.

Township 29, Range 9.

This township is thickly wooded; the southerly half with poplar from four to

eight inches in diameter, the northerly half with small poplar and willow.

The surface is rolling, but not hilly or broken. The soil is composed of black loam from four to ten inches in depth, with clay subsoil, and is good agricultural land. Only a limited supply of hay can be procured in this township, as the hay marshes are neither numerous nor extensive in area. The whole township has been overrun by fire during the past season which has destroyed most of the timber of any value. Three creeks run in an easterly direction across the township, with banks from 60 to 100 feet in height.

Township 30, Range 9.

The southerly half of this township is covered with a thick growth of small poplar and willow; the northerly half with clumps and belts of poplar and willow, with openings of scrubby prairie and scrub. The soil in the southerly half of the township is composed of black loam with clay subsoil; in the northerly half the subsoil is gravel. A creek enters this township in Section 7 and, running in an easterly direction across it, leaves it in Section 12. This creek and several ponds in the township give an unlimited supply of good water.

Several ponds containing water, strongly alkaline, are also found in this

township.

The southerly half contains some good farming land and a few hay marshes; the northerly half would be suited for sheep and cattle raising, and would besides produce a considerable quantity of hay.

Township 29, Range 10.

This township is thickly wooded with poplar and willow, excepting a portion of the north-west quarter, where poplar and willow are found in clumps and belts, with openings of scrub, and scrubby prairie. The soil varies from a sandy to a black loam, with clay subsoil, and is good agricultural land. The surface is rolling. It contains a fair proportion of hay land. A creek taking its rise from a spring, half a mile south of the township line, enters this township in Section 4, and, running in a north-easterly direction, leaves it in Section 36. A spring containing good water was found in Section 33, near the north boundary of the township. The greater portion of the township has been overrun by fire during the past season, which destroyed much valuable timber.

Township 30, Range 10.

The surface of this township is rolling. The ridges are mostly covered with a thick growth of poplar and willow, the valleys with thick willows and willow scrub, surrounding the hay marshes. The soil is a sandy and black loam, with clay subsoil.

It is well suited for agricultural purposes.

A creek enters this township in Section 35, and, running in a southerly and then an easterly direction, leaves it in Section 12. Several springs on this creek give a supply of good water.

Township 29, Range 11.

The surface of this township is rolling, and in places hilly. The ridges are usually covered with a thick growth of poplar and willow, ppenings of scrub, scrubby prairie, and hay marshes intervening between the belts and clumps of timber. The soil is a sandy and black loam, with clay subsoil, and is well suited for farming or stock purposes. A creek enters this township in Section 18, and, running in a northeasterly direction, leaves it in Section 33. It contained no water where it entered the township, but was supplied from a spring east of the township line. A spring containing good water was found in Section 24 near the east boundary of the township.

Township 30, Range 11.

The surface of this township is rolling. It is partly wooded with a dense growth of poplar and willow, occurring in clumps and belts, with openings of scrub, scrubby prairie and hay marshes. It is well suited for agricultural or stock purposes, the soil being a sandy and black loam, with clay subsoil. A creek containing an abundant supply of excellent water enters this township in Section 4 and leaves it in Section 32. The cart trail from Touchwood Hills to Fort Pelly passes through Section 31.

Township 29, Range 12.

The surface of this township is slightly rolling. It is partially covered with poplar and willow in belts and clumps, with openings of scrub, scrubby prairie, and hay marshes intervening between the belts and clumps of timber. The soil is a sandy and black loam, with clay subsoil. It is well suited for farming or stock purposes. One creek enters this township in Section 1, and leaves it in Section 13; another enters in Section 3, and leaves in Section 31. Neither of these creeks contained any water, nor was there any water found in this township. It was overrun by fire several years ago, destroying much valuable timber.

Township 30, Range 12.

This township is slightly rolling, and is fairly well timbered in belts and clumps, with scrub and scrubby prairie openings. It contains a fair quantity of hay land.

The soil is a black and sandy loam, with clay subsoil, and is well suited for stock or farming purposes. One creek enters this township in Section 6, and leaves it in Section 35. Another, supposed to be Duck Hunting Creek, containing good water, enters in Section 30, and leaves in Section 34. Still another, crossing and recrossing the north boundary, runs from west to east, leaving the township in Section 33. The cart trail from Touchwood Hills to Fort Pelly, passes through this township in a north easterly direction.

Township 31, Range 5.

This township is slightly undulating. It is partly wooded with poplar and willow, and contains some extensive hay marshes. The soil is a sandy and black loam, with clay subsoil. It is better suited for stock-raising than farming.

[PART II]

Township 32, Range 5.

This township contains some large hay marshes. The ridges are lightly timbered with poplar and willow.

The soil is a sandy and black loam, with clay subsoil. This would be a good

township for stock-raising, or for mixed farming.

Township 31, Range 6.

This township contains some good farming land along the banks of Devil's Creek, which enters the township in Section 33, and leaves it in Section 14. There is some good hay land in the creek valley and in other portions of the township. At the west outline of the township there is a heavy belt of poplar. The rest of the township is scrubby prairie, with clumps of poplar and willow.

Several persons located on Devil's Creek are going extensively into sheep

and cattle ranching.

53 Victoria.

Township 32, Range 6.

The northerly half contains large hay marshes and belts of poplar timber. The southerly half is open prairie with clumps of poplar and willow. Devil's Creek enters this township in Section 18, and leaves it in Section 4. The soil is black loam with clay subsoil, and is well suited for farming or stock-raising.

Township 31, Range 7.

This township is mostly covered with poplar and willow. Belts of poplar from 6 to 10 inches in diameter are found on the north, east, and south boundaries. The soil inclines to sand and sandy loam, with gravel subsoil on the south boundary, while in the northerly part there is sandy loam with clay subsoil. The township contains a number of hay marshes, and is better suited for stock than for farming purposes.

Township 32, Range 7.

This township is covered with a thick growth of poplar and willow, and contains a great number of small hay marshes.

The soil is a sandy and black loam, with clay subsoil, and is equally well adapted

for farming or stock-raising.

The northerly part has been overrun by fire during the past season, which has destroyed some valuable timber.

Township 31, Range 8.

The White Sand River enters this township in Section 30, and leaves it in Section 17. The township is lightly wooded with poplar and willow. It contains a considerable number of hay marshes, and the soil is light and gravelly. It is not a desirable township for settlement but would be good grazing land for cattle or sheep, especially the latter.

Township 32, Range 8.

The northerly half of this township is very thickly wooded with poplar and willow. The southerly half is lightly wooded with clumps of the same wood. It contains a great number of small hay marshes. The soil on the north and east boundaries is a sandy and black loam, with clay subsoil, while on the south boundary it is light and gravelly. This is only an average township for either stock or farming purposes. It has been overrun by fire during the past season, destroying much valuable timber.

Township 29, Range 4.

The White Sand River enters this township in Section 3, and leaves it in Section 25, and along the river banks there is some good farming land. The soil is generally a sandy loam, with sand subsoil.

This township contains a large number of hay marshes, and is thickly wooded, in belts, with poplar and willow, and is well suited for stock-raising or farming. Several settlers have already located in it, with the intention of raising horses.

Township 30, Range 4.

This township contains some extensive hay marshes. A thick growth of poplar and willow occupies the ridges. The soil is a sandy loam, with subsoil of sand in the south, and clay in the north part of the township. It is well adapted for either farming or stock-raising.

Townships 29 and 30, Range 5.

Devil's Lake, a beautiful sheet of water about eight miles in length and three miles in breadth, is situated in these townships. It contains excellent water, probably the best water to be found north of the Qu'Appelle and west of the Assiniboine Rivers. It also contains a great number of pike, or jack-fish, some having been caught weighing as much as twenty pounds; and, being the only lake containing fish in this locality, it is extensively patronized by the settlers.

on the south east side of the lake, sand hills, composed of blown or drifting sand, rise to a height of from 60 to 100 feet, and besides poplar, sustain a growth of willow, cherry, saskatoon and juniper bushes. Immediately east of the sand hills the country is low, level, and marshy. These townships in an ordinary season would produce an immense quantity of hay; although the past season was dry there was a great quantity of hay cut, so that there are now wintering in the vicinity of the lake, and mostly in these two townships, about 1,000 head of cattle and horses. If the season had been favorable for producing hay 10,000 might be wintering here just as easily. There is no water running out of the lake, and but little appearance of an outlet, as it passes into marshes on its way to the White Sand River. The Indians, however, claim that there was a time when they could paddle their canoes up from the White Sand River into Devil's Lake; and I think there is nothing unreasonable in this, as in 1880, when the block line was run between Ranges 4 and 5, many of the posts appear to have been placed in the marshes in water two or three feet in depth, while during the past season the marshes were perfectly dry,—so dry that they only produced an indifferent crop of hay. The soil is a sandy loam, with subsoil throughout of sand.

The ridges between the swamps are covered with a thick growth of poplar and willow. While there is some fair farming land in these townships, they are better

adapted for stock-raising than farming.

In carrying on the survey during the past season there were two difficulties to contend with—scarcity of water and prairie fires. After a succession of dry seasons there was a very light fall of snow during the past winter, which had all disappeared in the month of March, so at the outset it was difficult to procure water. The usual June rains failed, and a dry, hot summer followed. By digging wells and camping at places where water could be procured, at great distances from the work, and by using water from alkaline ponds, June and July were passed. Throughout the remainder of the season water was drawn in barrels, often more than 10 miles.

The horses had also to be taken to get their daily supply. In one instance, in Beaver Hills, I sent 7 or 8 miles for water, and had to do without water, or dinner,

until after 3 o'clock.

The following day a spring was found, 10 or 12 chains from camp. I only give this instance to show that in an unexplored region both men and horses may be suffering for want of water, while if settled, or better known, an abundant supply might be found. The troubles that arise in surveying an unknown country would often disappear entirely if the country was well known.

The difficulties arising from the scarcity of water are considerably increased

when the country has been overrun by prairie fires.

If the camp is placed where it best suits the work, the horses have to be sent miles away to get feed; then the feed is not always found where water is, and 36

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the horses have to be taken to water, and back again to the feeding ground; otherwise they have to be picketed where the food is limited, and not on grass they would have chosen, but what they are compelled to use through stern necessity. The consequence is that with scarcity of water and food they become reduced to living skeletons. But while it is disagreeable, to say the least, to work a whole season in burnt country, this is nothing compared to the incalculable damage done by the fires to the public domain. The damage done by the destruction of timber, in some districts not too plentiful, and the burning of the vegetable mould in hay marshes, will take years to repair. There will always be some difficulty in tracing the origin of prairie fires, as they are often started at great distances from settlement. In settled districts neighbors are not inclined to become informers, and usually do not give information, unless they have sustained serious loss themselves as a result of the fire. All that is required is to exercise a little care in dry seasons to avoid the danger of leaving a fire behind after preparing a meal on the prairie.

I have the honor to be, Sir, Your obedient servant,

JOHN McLATCHIE, D.L.S.

E. DEVILLE, Esq., Surveyor-General, Ottawa.

No. 10

REPORT OF C. F. LECLERC, D. L. S.

SURVEY OF HALF-BREED SETTLEMENT ON THE SOUTH SASKATCHEWAN RIVER

St. Jean, Port Joli, 14th November, 1889.

SIR,—I have the honor to report as follows on my operations in the survey of the Half-breed settlement on the south branch of the Saskatchewan River, in the District of Prince Albert:

On receiving my instructions from the Department on the 26th December last, I proceeded immediately by the C. P. R. to Qu'Appelle, and from there by mail stage to Batoche, where I organized my party and procured the necessary outfit.

I paid a visit to Revd. Father Lecoq, of St. Louis de Langevin, and consulted

I paid a visit to Revd. Father Lecoq, of St. Louis de Langevin, and consulted in his presence a few of the settlers about their claims and the way in which they

wished to have them surveyed.

I then proceeded with the survey of river lots in conformity with their wishes, as much as possible, and they all seemed to be well satisfied, and very grateful to the Department.

On the 18th of February I received instructions from Ottawa to confer with the Agent of Dominion Lands at Prince Albert, in order to ascertain if he had any request for similar surveys from the Half-breeds in his district.

In accordance with his instructions I made surveys in Townships 44 and 45,

Range 1, west of 3rd Initial Meridian.

While I was thus engaged the land agent collected information from the rest of the District, and on February 27th, on going again to Prince Albert, I received new instructions from him for surveys in Townships 42 and 43, Range 1, and Townships 41 and 42A, Ranges 1 and 2, all west of the 3rd Initial Meridian.

I finished this work on 10th April and made a report to the Prince Albert Agent, who informed me that this completed the surveys required. After settling with my

party on 13th April I left for the east.

I have the honor to be, Sir, Your obedient servant,

CHS. FRS. LECLERC, D. L. S.

E. DEVILLE, Esq., Surveyor General, Ottawa.

No. 11.

REPORT OF J. L. REID, D. L. S.

CORRECTION, SUBDIVISION AND TRAIL SURVEYS.

PRINCE ALBERT, N. W. T., 23rd November, 1889.

Sir,—I have the honor to report that I have completed the work given me by your instructions of the 7th of May and the 13th of September last, viz:—

- 1. Survey of trail from Gabriel's Crossing of the South Saskatchewan to Humboldt.
- 2. Survey of trail from Batoche's Crossing of the South Saskatchewan to its junction with the Qu'Appelle and Prince Albert trail.
- 3. Survey of trail from Fort à la Corne to Spence's Crossing of the South Saskatchewan.
- 4. Survey of trail from Pahonan settlement to the Carrot River settlement.
- 5. Survey of portion of trail from Duck Lake to Batoche.
- 6. Survey of the north and south boundaries of Township 42, Range 1, west of 3rd Meridian; also north boundary of Township 42 A, Range 1, west of 3rd Meridian.
- 7. Survey of river lots at Carlton.
- 8. Subdivision survey of that portion of Township 49, Range 1, west of 3rd Meridian, lying south of the North Saskatchewan River.

Though this district has, to a certain extent, felt the general drought; still, owing to its great natural advantages, the settler has abundance of water, wood, and hay, and the grain harvest, though not as large as usual, is of superior quality. I would also beg to draw your attention to the terrible destruction, from fire, of timber, that has occured in this district during the past summer. The whole country to the north of the North Saskatchewan River has for miles been devastated; thousands of dollars worth of valuable timber has been destroyed. Report comes to us that the timber about Montreal Lake, Red Deer Lake, Trout Lake, Candle Lake, and away east down the Sturgeon River, has been completely destroyed. Large belts of fine spruce and poplar, which cannot be replaced to the country, have disappeared.

I have the honor to remain, Sir, Your obedient servant,

J. LESTOCK REID, D. L. S.

E. DEVILLE, Esq., Surveyor General, Ottawa.

No. 12

REPORT OF P. R. A. BELANGER, D.L.S.

SURVEY OF TRAILS AND SETTLEMENTS AT LAKE STE ANNE AND LAC LA BICHE.

L'Islet, 13th December, 1889.

SIR-I have the honor to submit the following general report of my doings

during the last season.

In accordance with your instructions, dated the 7th May last, for the survey of certain trails in the Edmonton district, and the settlements at Lake Ste. Anne and Lac la Biche, I left home on the 14th for Winnipeg and Calgary, reaching the latter place on the 23rd of the same month.

There I bought some supplies and camp equipage, while waiting for the Inspector of Surveys, who arrived on the 26th, and supplied me the next day with the

remainder of my outfit.

On the 27th I started for Edmonton, where I arrived on the 4th of June.

Here I spent a couple of days in completing my outfit and hiring my party, after which I commenced the survey of the Edmonton and St. Albert trail, from the north boundary of the settlement of Edmonton, on Section 6, Township 53, Range 24, west of 4th Meridian, proceeding north-westerly to St. Albert.

This trail measures about six miles and a-half in length, and connects with a

street on the Roman Catholic Mission town site at St. Albert.

It runs across a settled country of nearly level prairie, and though the soil is

loamy the road is generally good.

The general course of the trail was followed by my survey, making alterations worth mentioning only in two places, in order to straighten bad bends. In one of these places I ran the trail 5 or 6 chains off the old track and across a cultivated field owned by a Mr. Harnois, but the consent of the proprietor was obtained, and he was satisfied with the change.

Mounds with wooden posts were placed in proper positions; but, with regard to these mounds, I regret to say that on my way back this fall I noticed that the cattle had already destroyed them and knocked down the posts, leaving only the pits to witness to the corner approximately. On the 12th June, having finished the Edmonton and St. Albert trail survey, I proceeded at once to Lake Ste. Anne, which I reached

on the 14th.

Here I was employed during sixteen days in the survey of the trail and of the settlement. The latter survey occasioned a great loss of time in opening up the lines, as, though the settlement is small, the land is heavily timbered. I experienced also some delay through the dense smoke of the bush fires that prevailed in June and July, which fires destroyed an immense quantity of valuable timber in the northern districts.

The settlement is situated on the south shore of Lake Ste. Anne. It extends over

a distance of about six miles, and numbers twenty lots in all.

The lots, with the exception of five, were made as regular as possible, and about 160 acres in area. The side lines were run north and south as far as practicable, and

chords of sections were surveyed for the rear line.

Lot A, as laid out, was intended as a homestead for the settlers on lots 9, 10 and 11, but they objected to it, because the land was too swampy for farming purposes, although it might serve for grazing land; and as they declared themselves satisfied with the few acres they had already cultivated around their houses, I arranged the lots to suit their wishes.

The said lot A is applied for by the Oblat Fathers in compensation for the loss of some land on which they had a claim of 40 years' standing, but which has been

taken possession of (jumped) by squatters.

The population of the settlement, with the exception of the missionary and the H. B. Co's. Factor, his family, and an old French Canadian, is composed of Half-breeds and some Indians, the majority of whom speak only the Cree language, and like their ancestors the Crees, they do not care much for farming and seem to depend entirely on fish and game for their living.

As to the agricultural capacity of the land, it may be called good. The climate is also very good, and free from summer frosts for a mile around the lake, but notwithstanding these advantages the settlement is bound to progress very slowly, owing to the great quantity of timber that covers the land and the want of proper

settlers for such a country.

Lake Ste. Anne is a beautiful sheet of water, somewhat in the shape of a pair of spectacles, with narrows in the centre about 4 chains wide. Its length is about 10 miles and its width 4.

It seems to be the breeding ground of the black ducks which abound in that region. It was also at one time full of whitefish, but, owing to the great numbers taken in nets by the Half-breeds and Indians during the spawning season, the supply is rapidly diminishing every year, and before long none will remain to be caught.

is rapidly diminishing every year, and before long none will remain to be caught. On the 4th July, having completed the survey of the Lake Ste. Anne settlement, I returned to Edmonton to survey the Edmonton-Saskatchewan trail; but, finding that Messrs. Wilson and Oliver, members of the North West Council, to whom I had been referred as advisers concerning the location of that trail, had not yet made up their minds about it, I decided to postpone the survey till the fall, and after applying to you for instructions I discharged my party and proceeded to Lac la Biche via the Victoria and Saddle Lake trail, a distance of about 180 miles. I reached Lac la Biche on the 14th July, and the next day I hired a new party and started work at once.

Here I was employed during three full months in the survey of the settlement and the main trail which crosses it.

Nearly all lines, either for the survey of the lots or for the trail, had to be cut through the bush. This occasioned great delay in the progress of the work.

The settlement, though comprising only 80 lots in all, extends over a distance of about 40 miles, that is, following the sinuosities of the lake shore.

It is scattered around the southern and north east parts of Lac la Biche, and is situated near latitude 55°, and about 160 miles from Edmonton by the shortest road.

The lots I laid out vary in width from 10 to 45 chains, and in depth from 40 to 160 chains, and were surveyed in such shapes as to comply with the instructions received by me, and to satisfy the squatters whenever possible, avoiding interference

with their improvements.

My operations consisted in the traverse of the lake from one end of the settlement to the other, the survey of a base line along the shore of the lake, on which I planted posts to mark the frontage of each lot, and a rear line, on which I also planted posts to show the width and depth of each lot. The main trail was also surveyed for a distance of twenty-six miles across that part of the settlement where the lots are contiguous or nearly so.

In the eastern part of the settlement, where the lots are distant from one another, I did not make any survey for the trail, but I reserved a road allowance across such lots.

Important changes were also made in the location of the trail, in order to avoid crossing the claims unnecessarily, and to throw it inside of the settlement where it

ran for a long distance from 5 to 10 chains outside of the boundary.

Several lakes in the interior of the settlement were surveyed, and side lines of lots were run in different places, in order to test the work and establish the true position of different points. The azimuths of lines were checked by observations about every three miles, but my work was not tied to any old survey, as no line has been run so far north in this neighborhood.

As at Lake Ste. Anne, the population of Lac la Biche is almost entirely composed of Half-breeds and Indians, who for the most part speak only the Cree language, and, like their brethren at Lake Ste. Anne, depend on the game and fish for a livelihood.

Lac la Biche is a large sheet of water, measuring about 60 miles in contour and nine miles broad. It is situated about ten miles north of the height of land, and empties its waters through the La Biche River into the Athabaska River. It abounds in fish of different kinds, such as whitefish, pike, carp, etc. To give me an idea of the value of the fishing, a squatter told me that last year, during about ten days in October, the spawning time, 113,000 whitefish were killed, and the year before 108,000 had been caught. If we add to that number about 500 to 1,000 fish that are caught daily all the summer for the consumption of the settlement, we will form an idea of the great destruction of fish that is going on at Lac la Biche. With regard to the agricultural capacities of the land in that settlement I may say they are very good. The soil is either clay loam or sandy loam, and will produce all kinds of cereal or root crops. The only apparent objection to this district for settlers is the labor involved in clearing a forest country. The climate is very fine, so fine that I do not hesitate to say there is not its equal in any settlement in the North-West. This is due to the warmth of the waters of the lake which tempers the atmosphere for a couple of miles around its shore. The inhabitants of the place agree in saying that they have never seen any frost to injure their crops. With such advantages, it is a pity to see that so little has been done towards opening up this fine country. I am inclined to believe that as long as there are fish in the lake the settlement is bound to remain at a standstill. Settlers in search of safe farming lands I should strongly recommend to go to Lac la Biche. There they will find what they desire, and will not be exposed to disappointment.

In the interest of the settlers located in such a distant region, and for the advantage of the travelling public, I will take the liberty to suggest that the Government should open a new road in a direct line from Lac la Biche to St. Albert. This would shorten the distance about 60 miles, and would have the further advantage of avoiding a number of bad creeks and rivers that have to be

forded on the old trail, and are a great source of annoyance.

The settlement of Lac la Biche possesses a mission, of which the parochial duty is performed by the Oblat Fathers, M. I. These missionaries have a homestead on which they have already cleared about 80 acres of land which are under cultivation. This year they had a good wheat crop on about 40 acres; they have also raised 2,000 bushels of potatoes, most of which is for the benefit of their flock. They possess also on their claim grist and saw-mills, which prove of great advantage to the whole settlement. The Sisters of Charity have a convent where they bring

up and educate orphans.

On the 16th October I left Lac la Biche to return to Edmonton, and arrived at that place on the 22nd. Messrs Wilson and Oliver having left for Regina without informing me as to their decision about the location of the Edmonton-Saskatchewan trail, I telegraphed to the Lieutenant-Governor, asking him to appoint a Trail Commissioner to decide in the case. In reply, the Lieutenant-Governor instructed me to act as commissioner and to examine into the respective advantages of the two trails known as the "inner" and "outer" trails, forwarding, at the same time, a copy of the petitions in favor of each. After investigation, and inquiries from the interested parties, I soon found out that the general desire was in favor of the "inner" trail. The people most interested, the travelling public of Edmonton and Fort Saskatchewan, were almost unanimous in favor of the "inner" trail, and among the settlers whose claims are crossed by that trail I found only one who offered serious objection; therefore, I proceeded to survey the inner trail. This, though not very old, was in existence before the township surveys were made in the locality, and has always been used since, while the "outer" road is not what may be called an "old trail"; it has never been used for one-half the distance, which is the part where it is proposed to follow the correction line. Further, that trail needs no survey in order to be recognized by law, except the small piece which would follow the "Athabaska Landing trail" to the correction line. The first part of the "outer trail," as proposed, follows the road allowance along a meridian line. No great alteration was made in the general course of the trail surveyed except the one made by the Fort Saskat-PART II

chewan people two years ago near their settlement. In order to shorten the distance the old trail had been abandoned and that piece adopted and improved with public

moneys.

The distance between the two settlements of Edmonton and Fort Saskatchewan measures thirteen miles and 30 chains. The survey covers all the improvements made by the North West Council on the trail, with the exception of a small bridge at the start, which had been made common to both the "inner" and the proposed "outer" trails.

The small change I made at the starting point in the location of the road, at the request of the only opponent to its survey, will necessitate the construction of a

small bridge about 15 feet long.

According to instructions, mounds with wooden posts were erected to mark the

angles.

On the 4th November, having completed the surveys allotted to me for the season, I discharged my men and returned to Edmonton, where I spent the three following days on private work, after which I left for Calgary, where I arrived on the 14th and delivered my outfit at the survey depot. The following day I left Calgary for home which I reached on the 20th.

I have the honor to be, Sir, Your obedient servant,

P. R. A. BELANGER, D. L. S.

E. Deville, Esq., Surveyor-General, Ottawa.

No. 13.

REPORT OF W. S. DREWRY, D.L.S.

TRIANGULATION SURVEY OF RAILWAY BELT IN ROCKY MOUNTAINS.

Ottawa, 14th December, 1889

SIR,—I have the honor to present the following interim report of field operations on the triangulation survey of the Railway Belt in the Rocky Mountains.

On being informed that it was intended to place me in charge of this survey I at once began collecting information regarding the country from all available sources, and before leaving Ottawa had projected a scheme of triangulation.

The views of the Bow Pass and surrounding country taken by J. J. McArthur, D.L.S, during the season of 1888, and his verbal statements regarding the same, were

a very valuable aid, and I desire to acknowledge my obligation to him.

The objects of this survey were to be purely practical, the refinements of geodetic work not being attempted and, in fact, being prohibited by the class of angle-measuring instrument employed. It being impossible to run a system of meridian and base lines in the mountains as on the prairie, an accurate definition of points, to which topographical surveys, and surveys of mining claims, timber limits, and lands, could be tied, was necessary for the proper administration of the country.

This end could be reached only by a triangulation survey.

While carrying on this work other very necessary work was to be performed, such as track surveys of passes, the taking of photographic views from the several stations occupied, and, in general, the collection of information from which to construct a topographical map for the guidance of parties making future detail surveys.

In compliance with your instructions, dated 4th June 1889, I left Ottawa on

8th June and went to Calgary.

At this place packers, laborers, and cooks were hired, and the pack horses,

saddles, etc., essential to a mountain survey, purchased.

The men were divided into two parties—one, consisting of a cook, packer, and laborer, being placed in charge of my assistant, L. A. Dufresne, D.L.S., to do the angle measuring, while I, with an assistant, packer, cook, and three laborers undertook the work of exploring, trail cutting, choosing the stations, signal setting, taking of photographs, and collection of other information for topographical purposes.

While we were fitting out at Calgary the whole country became enveloped in a dense smoke, and remained in this state with little interruption for several weeks.

Our purpose had been to begin work at the continental divide, as instructed, and work eastward to the prairie, where a base could be measured; but, in view of the dense smoke, I decided to camp in the foothills, near the mountains, where supplies could be easily procured and work done in short intervals of clear atmosphere.

Early in July there was a heavy fall of snow in the mountains and the air cleared sufficiently to allow the selection of two foothill stations and their supplementary mountain ones. On the 8th day of July I accompanied the observing party to a high foothill north of Ghost River, and selected the position for a signal, pointed out a mountain peak lying north of the east end of Devil's Head Lake, on which another signal was to be erected, and left them with instructions to set both, while I returned to my own men, set the Chiniquy Lake signal south of Morley, and went on into the mountains.

The signal setting above mentioned had not been completed before dense smoke again enveloped everything; but, acting on the information gained before leaving Ottawa, I determined to push on into the mountains while the observing party returned to Chiniquy Lake to await weather favorable to their work.

We followed the south side of the Bow River as far as Canmore, exploring, en route, toward Wind Mountain, our objective point. Finding it inaccessible from the Bow Pass we turned aside at Canmore, and entered White Man's Pass, which led us in a southerly direction and along the south-westerly foot of this gigantic mountain, which rises at its highest point 10,400 feet above the sea.

It had been purposed to place a signal on the most northerly peak of this mountain, but, upon climbing and exploring, we found it inaccessible with our means, so we explored the next peak south, and found it was slightly higher than

its sister peak and could be ascended.

We camped at its foot for several days, waiting for clear weather, but none

Our stock of provisions began to show very alarming signs of shrinkage, so we ascended the peak and built a cairn of stones about 9 feet high, 8 feet diameter at the base and 2 feet at the top. In this we built a pole, to which was attached a bright red flag 26 inches wide by 3 feet long. Wrapped about the cairn and built into it we put red, white and black cloth, the ends being firmly sewn together, and the whole bound by strong cord.

This was the form of signal used throughout in the mountains, with the exception that on all others we guyed the poles, tying the lower extremities of the guys about

the cairn, half way down its height.

This form of signal has disadvantages, which I hope to discuss in a later technical report; but it has the great advantage of being permanent, and of its heavy

parts being found on the mountain tops.

Wind Mountain signal is some 10,200 feet above the sea, and can be reached by but one route after a long, hard and rather dangerous climb, the upper 500 feet of the peak being a succession of short cliffs, which necessitates careful work in climbing.

Two of us had a narrow escape from falling stones, caused by an inexperienced member of the party crossing above us and loosening rocks, one of which, about the size of a man's head, barely missing, whizzed between us almost with the speed of a cannon ball. Warnings and other things being hurled at the offender made him quickly realize the danger, and during the whole season we had no more escapes of this kind as everybody was careful.

The next day, after our descent to camp, we started for Canmore.

It had been purposed to make a survey of White Man's Pass, but the dense smoke rendered all topographical work impossible, and indeed our time was very fully occupied in cutting our way through the heavy windfall which extends for miles at a time. Besides, the greater part of our route lay within Mr. McArthur's topographical work, now being mapped, and I did not deem it advisable to delay my work to duplicate that already done.

We followed the Bow Pass from Canmore to Banff, and camped on Whiskey

Creek at the foot of Cascade Mountain.

We had now progressed to a point beyond which it was useless to go without clear weather, so we remained encamped here until the 26th day of August, in the meantime building a signal on the highest point of Cascade Mountain, 9,800 feet above the sea. This is a long, tiresome climb, but not specially dangerous.

When the smoke disappeared I telegraphed Mr. Dufresne to begin observing, and after a few days delay from the return of the smoke we moved down the Simpson Pass to the neighborhood of Mount Assiniboine, where another signal was to be

erected.

Crossing Bow River at Banff we followed its south side some ten miles to the mouth of Simpson's Pass, which, as far as the summit, is the valley of Healy's Creek.

The creek itself flows for a considerable distance in a deep canyon, the pack trail

being high up on the mountain sides.

It then gradually approaches the creek, crosses, and after following its banks for some miles leads abruptly upward until the summit is reached, nearly 7,000 feet above the sea.

At this point a singular freak of nature was found. A rugged gulch breaks the mountain side to the south, and down this rushes and leaps a stream of water which, reaching the pass, separates, one part flowing to the Bow River and eventually to Hudson's Bay, while the other forms a branch of the Simpson River, finally reaching the Pacific Ocean.

The pass from the divide to the Vermilion River is the valley of the Simpson, and the descent from the summit to its fork is very steep, and rather dangerous for

horses.

As stated in my progress report of 27th August, I deemed it advisable, in view of the protracted delay from smoke, and the season during which we were certain of being able to work rapidly drawing near its close, to partially neglect topographical work and devote our whole time and energy to completing the triangulation to the summit, as this work was urgently needed to tie in Mr. McArthur's topographical work of 1887 and 1888, the routes over which we would travel having already been mapped by Mr. McArthur and members of the Geological Survey.

On reaching the forks of the Simpson we camped, and began exploring for a sta-

tion.

This entailed considerable work, as the smoke had rendered it impossible to see anything of the country from other stations, and away from the pass it had never

been correctly mapped.

While exploring we found an old Indian trail leading up to what might be termed the east branch of the Simpson River, and examination revealed the fact that it led through a pass which probably opens out into the White Man's near Cone Mountain. Considerable chopping had been done on this trail, the Indians probably preferring

this route to climbing over the summit on the Simpson Pass.

Finally, after delay from rain and snow, a point suitable for our operations was found, and we climbed to it through snow nearly knee-deep. The air was piercingly cold, and it was with difficulty we kept from freezing, although the sun shone brightly.

I tried to take photographs of the surrounding country, but found that the plate holders had swelled to such an extent that they could not be forced into the camera.

I then measured angles to different peaks with the prismatic transit, took compass bearings, and attempted to sketch the surrounding country, but my hands had become so stiffened with cold that I could not control the pencil, so was forced to desist.

Returning to camp we were all affected by snow-blindness, and for two or three days thereafter suffered considerably from this cause.

The men called this station "Fatigue Mountain," it having been a terribly

severe day's work to reach its top and return to camp.

While on the peak I saw what appeared to be a much easier route to the signal than that follwed by us, and examination showed it to be quite feasible, so I determined to send a man to guide the observing party by it.

I had decided to go down Simpson Pass to its junction with the Vermilion, and thence up the Vermilion to Mount Bell in preference to risking the horses over

the summit of Simpson Pass.

We accordingly started on what proved to be the ronghest trip yet experienced. Reaching the confluence of Simpson and Vermilion Rivers, we were delayed by a heavy rain, which fell as snow on the mountains. As soon as it cleared we started up the Vermilion, and were again overtaken by rain and snow, but, as we had just sufficient supplies left to sustain us until we could procure more at the railway, we were forced to move.

It was truly desperate work, everything and everybody being thoroughly soaked from the snow on the brush, and yet so cold was the air that when we camped it was a matter of considerable doubt whether or not any of us could take a pack off a horse or hold a match in our benumbed fingers to light a fire. Finally we reached Mount Bell, and leaving the party camped there, I started in company with one man for Castle Mountain station, on the Canadian Pacific Railway. For sixteen miles we 46

plodded through a blinding snowstorm, following an Indian trail, consisting mostly of a blaze on a tree here and there, and jumping our horses over windfall that seemed almost impassable. Having found a good crossing of Bow River we reached the station towards nightfall, thoroughly tired out, wet and hungry.

I took the train that night, went to Banff, procured supplies, and shipped them to Castle Mountain, from which point they were packed into camp without delay.

I found that the observing party had just reached Banff after occupying Chiniquy Lake, Ghost River, and Devil's Lake stations. Learning that Chiniquy Lake had not been observed from Devil's Lake, I gave instruction for the re-occupation of that station, made an examination of the readings taken, and instructed Mr. Dufresne to proceed to Wind Mountain after going to Devil's Lake.

I then returned to camp in Vermilion Pass and found from explorations carried on during my absence that although Mount Bell could probably be ascended, it

was not suitable for a station, as it was glacier-capped.

We therefore separated into exploring parties of two each. After climbing seven mountains it was found that Storm Mountain, in the Summit Range, was the only one available.

Six stations will be observed from this point, and it is therefore easy to under-

stand its importance and the difficulty in selecting it.

On its location depended our chance of getting around the much higher and inaccessible Lefroy and Goodsir Ranges, but I think this can be very successfully done from the point chosen.

Having decided on the point we took our blankets and some provisions on our backs and followed up a small creek heading on the south-east side of Storm Mountain

and emptying into the Vermilion.

This creek flows through a narrow, rugged gulch, which rises quite rapidly, so that at night we camped at timber line. Early the next morning we started for the summit and at eleven o'clock stood on the topmost point, 10,350 feet above the sea, as shown by the barometer.

It was a long, steep and laborious climb, but not dangerous.

The view was commanding and magnificent, so I took photographs of the surrounding country, and measured the azimuths and zenith distances necessary for their use in mapping.

While thus engaged the men were busy erecting a signal, and as it might be necessary to see it at a distance of some thirty-eight miles, it was built 12 feet high, 8 feet diameter at the base, and 2 feet at the top.

When coming up Vermilion Pass I had observed a low gap in the wall of mountains to the west, out of which flowed the West Fork of the Vermilion, but had not paid any particular attention to it.

However while exploring, and on Storm Mountain, I found that this gap extended through to the Ottertail Valley, and that the Indians use this pass instead of coming up what is known as the "Big Hill," in Kicking Horse Pass.

So far as I am aware, this pass has not been explored or mapped by white men, but from what I saw of it, I am inclined to think it might offer an alternative route for the Canadian Pacific Railway, enabling them to avoid the excessively heavy grade on the Kicking Horse, besides slightly shortening their line.

Vermilion Pass is easy of access and favorable to railroad construction.

'Following up the West Fork of the Vermilion, the valley leads in a very direct line to the Ottertail, and this creek flows almost in a continuation of the same line to the Kicking Horse Valley.

It is difficult to judge the nature of a country when looking down upon it from a mountain top, as everything appears flat, but the valley seemed to offer such easy passage that during another season's operations a track survey of it should be made, with barometic determinations of elevations.

Having finished our work at Storm Mountain, we moved to Banff, which place

was reached on 28th September.

Hearing that the observing party were at Canmore, I at once went there and found that they had met with a series of unfortunate delays, among others having

one of their best horses killed on the railway track.

The season was so far advanced that it was a matter of doubt whether they could occupy all the stations at which signals had been set, so I decided to leave the Mountains, set the foot-hill signals, and measure the base, while the observing party continued their work in the mountains as long as the weather permitted.

Accordingly, I moved my party to Morley, from which point we went to re-set

the Chiniquy Lake signal, which had blown down during a tremendous gale.

In setting the signal previously no guys had been used, but we now secured it

with wire guys, and used this means on all signals set thereafter.

We travelled southwest from Morley some seventeen miles to a hill or butte near the north-west corner of the Sarcee Indian Reserve, and finding it suited to our

purpose, placed a signal on it, and named the place "Sarcee Butte Station."

We then moved to Mitford, about two miles west of Cochrane station on the Canadian Pacific Railway. I had already selected station points to the north and west, but as it was getting late in the season, and the observing party were considerably behind, we began the base operations and neglected signal-setting until such time as it was needed.

An examination of the country showed that the portion of the Bow Valley between Mitford and Cochrane was best suited to a base location, so I at once selected the ground for this purpose and began an exploratory compass survey of the adja-

cent country to find its possibilities.

We found that a base of 8,120 feet could be had, and an expansion to a side of the main triangulation effected by occupying seven intermediate stations in addition

to the two primary ones, the smallest angle used being 43° 24'.

A base was then ranged out and marking stakes 2 inches square driven solidly into the ground 66 feet apart; these were then sawed off to true grades at a height of about 2 feet from the ground. The ends of the base were marked by bars of 2 inch square bar iron, driven 3 feet 6 inches into the earth, and on the tops of the bars crosses were cut with a cold chisel, one cut being in the line of the base and the other at right angles to it, the crossing of the cuts being the points to which measurements were made.

The centre line was then marked on the tops of the intermediate stakes, and the base measured with a steel tape stretched at a constant tension of twenty pounds.

Two wholly independent measurements were made, with a resulting difference

of but .036 of a foot.

When not occupied on the base work we were engaged in setting the various signals needed, so that but two days were lost during this time. The base measuring and signal setting were completed on the 7th day of November, and in the meantime the observing party had finished their work in the mountains and moved into the foot hills.

The weather being favorable, they made good progress, and completed their work on the 19th day of November, reaching Calgary on the 20th. I then stored our outfits, wound up the business of the survey, and on the 22nd of November left for Ottawa, where the returns of survey are to be made.

RESULTS OF SURVEY.

The primary triangulation extends from Cochrane, Alberta, to the summit of the Rocky Mountains.

The whole work necessitated the occupation of seventeen instrumental stations, which was performed between 8th July and the 20th November. About six weeks of this time was practically lost through smoke. Deducting this from the time between the given dates would give an average of over a station per week in ordinary weather, which was much better than had been calculated upon.

This result was obtained by travelling in all about one thousand miles through the mountains and foothills, in addition to twenty climbs of lofty mountains and twelve ascents of high foothills.

The angle-measuring instrument employed was a three vernier 6 inch altazi-

muth reading to $\frac{4}{1000}$ of a degree or $14''\cdot 4$.

The greatest side observed in the primary triangulation was 22.3 miles, and the least 11 miles; the greatest closing error in any triangle, as shown by the field calculations, being 26 seconds and the least 0 seconds. It must be noted, however, that the greatest closing error as given occurred in the expansion from the base with sides of less than six miles.

It had been decided to make the base measurement with a steel tape, and it was necessary to procure some apparatus for holding it in position. Having studied the matter, I devised a means which will perhaps be worth describing, as it gave good

results. It is, I believe, unique, and cost but \$5.75.

When in Calgary I had two straining stakes made of one-inch round iron with square heads, on which fitted iron handles at right angles to the axis of the stake,

and somewhat the shape of those on an ordinary chain.

One end of the tape was firmly lashed with snare wire to the end of a turnbuckle such as is used on the ordinary woodsaw, another turnbuckle being similarly lashed to the ring of a spring balance, its hook holding the free end of the tape. Lanyards of snare wire were in turn fastened to the free ends of the turnbuckles, and the straining stakes being driven at distances of about 3 feet from the marking stakes, the tape was then lifted into position and stretched by these lanyards, they being rove through the handles on the straining stakes, the handles permitting the lateral adjustment of the tape.

By means of the turnbuckle at the rear end the mark on the tape was made to coincide with the mark on the stake, and with the forward turnbuckle the tape was brought accurately to a tension of twenty pounds.

The forward mark was then made, the tape loosed, and the whole apparatus

moved forward to its next position.

We also constructed a small tripod of willows, from which a thermometer was suspended, having its bulb about level with the tape.

This was placed at the half distance between marking stakes, close to the tape,

and the temperature during the measurement of each length noted.

Measurements were made only during calm weather, as a very slight current of air sufficed to vibrate the tape to such an extent that accurate work was impossible.

The two measurements made actually differed 242 of a foot, but the mean temperatures differed 3° 9 Fahrenheit, so that using '0000065, Professor Johnson's co-efficient for 1° Fahrenheit, I find the true difference to be but 036 of a foot.

This may not be the true co-efficient for the tape used, but the possible difference

from the truth would not affect the result very appreciably.

The results given are in terms of the graduated length of the tape used; but I would draw your attention to the fact that although the Statutes say that every Dominion Land Surveyor shall have a standard of length stamped by the Department of Inland Revenue, and fix a heavy penalty for non-obedience, yet, I believe there is not at present, in the Dominion of Canada, any means by which the accurate length and constants of a 66 foot chain or tape can be determined.

The length might be found closely enough, so as not to seriously affect ordinary surveys, where short lines only are measured, but surveys of precision being undertaken, very serious discrepancies will arise from this cause alone, which may vitiate thousands of dollars worth of work.

It must be noted that any error in the base is multiplied throughout the whole work, and while an error in the length of tape would be multiplied but one hundred and twenty-three times in the base measured by us, yet, in extending the work through the triangulation for the distance of two hundred miles, the error in the length of tape would be multiplied sixteen thousand times.

In travelling through the mountains we found numerous traces of mineral wealth; but as we were not carrying on a mineralogical and geological survey, we conceived it to be no part of our duty to search out the deposits from which came the float found.

However, while exploring in Vermilion Pass, within twenty miles of the Railway, we came across some small veins of red hematite which evidently came from a large deposit in the vicinity.

We also found a vein of silver bearing galena cropping out about 12 feet wide. Between Banff and Vermilion Pass we found a vein of red hematite from 3 to

4 feet wide, and within three miles of the railway.

From what I observed on Simpson River, I believe that a very large body of iron ore exists there, but this would have to be reached through Vermilion Pass.

I also believe that a deposit of magnetic ore exists in the vicinity of Storm Mountain, as float was found, and the disturbance of the magnetic needle was quite marked.

We frequently found float ore, which would tend to prove the existence of

numerous deposits.

I also had a number of conversations with prospectors who, when they found I was not seeking information for private use, talked freely, and mentioned having found a number of veins, one of red hematite, specially mentioned as being of an average width of 15 feet and traceable for miles, easily reached, and within ten or twelve miles of the railway.

Prospectors have not been active in bringing deposits of iron ore to the notice of the public, as it requires a large capital for their proper development; and until now, such ores have been of little value in the Bow Valley. But the discovery of a great quantity of good coking coal at Canmore would seem to indicate that iron

mines may be profitably worked in the near future.

Much fine timber, consisting of black pine, spruce, and Douglas pine or fir, was found in Simpson and Vermilion Passes, but the bulk of it lies west of the divide,

and is not available to the North West Territories by water.

The only important body of timber, not under license, observed by us in the Bow Valley, lies at the mouth of Vermilion Pass, near a limit held, I believe, by the Eau Claire Lumber Company, of Calgary.

I have the honor to be, Sir, Your obedient servant,

W. S. DREWRY.

E. DEVILLE, Esq., Surveyor General, Ottawa, Ont.

No. 14.

REPORT OF J. J. McARTHUR, D. L. S.

TOPOGRAPHICAL SURVEY IN ROCKY MOUNTAINS.

AYLMER, 25th November, 1889.

SIR,—I beg leave to submit to you my report on the topographical work

performed by me during the past season. I reached Canmore on 21st June, but up to 25th August dense smoke interfered with our operations, and we were seldom able to work more than one or two days in

each week.

A wintry storm set in on 6th September, which lasted several days, and the great depth of snow on the mountains rendered climbing dangerous for some time

The tract covered by my survey is about 350 square miles in area, and extends from the National Park east along Bow River. To the south of the valley it takes in a strip from six to ten miles in width, and extending to the east to about eight miles beyond the mouth of Kananaskis River.

To the north it covers all the country west of this point, and lying between the

Bow River and the Park boundary.

We occupied fifteen triangulation stations, which, together with the setting of signals, necessitated making twenty-five ascents from 8,000 to over 10,000 feet above the sea.

I established twenty-five camera stations, and took 250 views. The plate used this year was the orthochromatic, which, I am happy to state, has given decidedly better results than that used last year.

Several of my stations were located in the foothills. I cannot help remarking on this beautiful ranching country, with its luxuriant vegetation, pure water, and

well sheltered valleys.

From one of the high hills in the neighborhood of Morley a beautiful, diversified scene meets the eye; all around are foothills, their summits mostly covered with large pines, whose deep green contrasts pleasantly with the bright color of the faded grass which covers the slopes and valleys.

In every direction we see herds of cattle and horses, with here and there an Indian habitation, for it must be borne in mind that the greater part of this beau-

tiful tract is included in the Stoney Indian Reserve.

We can trace the canyon banks of Bow River, running for miles through a level plain. To the west rise the Rocky Mountains, stern and forbidding, their gilded snow-capped peaks piercing the sky, while at their base, nestling in troughlike depressions, are numerous lakes, their surfaces glistening in the sunlight.

An attractive point in this neighborhood, the beautiful Kananaskis Falls, are

situated a short distance from the mouth of Kananaskis River.

After being reinforced by the latter stream, the Bow descends through a tortuous walled channel in a succession of chutes for a couple of hundred feet, and then falls through a gateway of rock, a distance of 25 feet.

From the canyon below the large expanse of broken water, and the walls of rock, with the towering peaks of the Rocky Mountains in the background, forms a picture

both wild and fascinating.

The coal deposits in the neighborhood of Canmore have been extensively pros-

pected during the past season.

Outcrops have been followed along the Bow River valley from the Cascade River as far as the Gap.

These deposits are regarded as belonging to a much later geological period than those of Pennsylvania. The latter belong to the Carboniferous age, while the former are found chieffy in the Cretaceous or Tertiary period.

Some of the seams which are being worked by the Anthracite and Brinkerhoff

Companies are in places from 12 to 14 feet thick.

The value of these coals is unquestioned, and they derive an additional importance from their geographical position.

Diligent search for iron is being made; and, from indications, it is expected that

it will be found in this neigborhood.

Should the search prove successful, these two minerals will supply the chief requirements for the development of the resources of this vast mountain and prairie country, and we may safely predict a prosperous future for the new town of Canmore.

> I have the honor to be, Sir, Your obedient servant,

> > J. J. McARTHUR, Dominion Land Surveyor.

E. DEVILLE, Esq., Surveyor General, Ottawa, Ont.

No. 15.

REPORT OF A. SAINT CYR, D.L.S.

DETERMINING LIMITS OF RAILWAY BELT, BRITISH COLUMBIA.

SICAMOUS B. C., 22nd November, 1889.

Sir,—I have the honor to report as follows on my surveys of the past season. These surveys were for the purpose of determining the limit of the railway

belt at all accessible points between Leanchoil and Sicamous stations.

According to your instructions dated 23rd April last, I proceeded to Golden City, B.C., in order to commence my work. I began by traversing the right bank of the Columbia River from Golden City to Beaver station, with the object of fixing the areas of the sections adjacent to the river. In the measured distance of 34 miles numerous tributaries swell the waters of the Columbia: on the right, the Wapta River enters the Columbia one mile below Golden City, Blaeberry Creek two miles below Moberly, and the Wait-a-bit and Blue Water Creeks at distances of one mile and two and a-half miles respectively below Donald; on the left, the Beaver River, which flows into the Columbia one mile below the Beaver station, is the only tributary of importance. There are two rapids, short but dangerous, on the Columbia River between Donald and Beaver. The first, named "Cañon Rapid," is half a mile below the mouth of Blue Water Creek; the other, Kitchen Rapid, is three miles and a-half above Beaver. Between Donald and Golden the Columbia River winds through a valley of which the width varies between 10 and 12 miles. This valley is bounded to the left by a range of high mountains, known as "Dog Tooth Mountains," of which the eastern slope is covered by a forest of fir and spruce of good size. The western slope of the Van Horne Mountains, which confine the valley on the right, is entirely bare, but close to the river there is occasionally a fringe of spruce.

I was informed that good timber would be found in the valley of the Blaeberry and Blue Water Creeks, and also along the Black Water, an affluent of the Blue Water; but I shall be able to furnish better information on these points when I have

made the traverse of the Blue Water.

From Beaver I continued the survey along the Columbia River as far as the limit of the railway belt, which crosses the river 70 chains below the head of the "Surprise Rapids." In the distance of twenty-five miles, following the windings of the river, the mouth of three considerable streams were seen; on the left Eight-Mile River and Gold River, and on the right Bush River. This last river joins the Columbia three-quarters of a mile below the Gold River. It has a width of 70 rods at its mouth, and is navigable for 30 miles. For 20 miles up this river large flats extend on each side as far as the hills, which are a mile distant from the river banks. The valley of the Gold River is of the same nature. From the mouth of the Beaver River to the limit of the railway belt, the eastern flank of the Selkirk Mountains, which bound the valley of the Columbia to the left, is well wooded with spruce, fir and cedar, averaging 20 inches in diameter. Pine is also found, but in small quantities. In the part of the valley to the right from the Beaver to within two miles of Bush River the forest has been to a great extend destroyed by fire. What remains of the timber is in narrow strips here and there on the mountain sides and along the ravines, or on the flats bordering the river. On these flats I frequently noticed cedar of 30 inches diameter; the spruce averages about 20 inches. Two miles above Bush River the forest again occupies the valley and also covers the left bank of that river for a distance of more than 20 miles from its mouth; on the right bank, what timber remained has been recently destroyed by fire. There is good timber along the Columbia River near the limit of the belt, comprising spruce

of 24 inches diameter, pine 24 inches, cedar 36 inches, and balsam 15 inches. One mile further down the brulé recommences and extends almost without a break to the south end of Lake Kimbasket, 20 miles away. Throughout this distance the eastern slope of the Selkirk Mountains is timbered with spruce, cedar and fir, averaging 15 inches in size. There is but little timber on the shores of Lake Kimbasket, which is eight miles in length. The Big Bend Rapids, which begin at the outlet of the lake, extend over more than 20 miles, ending three miles before Canoe River is reached. Along this stretch of the river we found timber of the following kinds in abundance: spruce 30 inches diameter, pine 24 inches, cedar 36 inches, and hemlock 36 inches: From six miles above Canoe River down to the mouth of that stream the original forest has been burnt and replaced by a second growth. After receiving the waters of Wood River and Canoe River, which discharge within a short distance of one another, the Columbia suddenly changes from the north-westerly direction in which it flows from Beaver downward, making a sharp turn to the south round the northern extremity of the Selkirk Mountains. Here these mountains lose the rugged aspect that they present when seen from the east; the glaciers and snow-covered peaks disappear and give place to a long succession of well wooded hills which slope gently down to the river. The timber on these hills does not exceed about 15 inches diameter. This description applies to the ten miles below the Canoe River.

The eastern slope of the Gold Range which now bounds the valley to the right is well wooded with fir, spruce and cedar of 30 inches diameter. At Smith Creek, 40 miles below Canoe River, there is also good timber, much of it cedar of large size. Ten miles further down we pass "Gold Stream." This river has several affluents and they all bring down gold. It is in consequence a station of some importance for miners, who find coarse gold here in considerable quantity. A good road connects this place with Revelstoke. Good timber is said to exist on the banks of Ten miles below this begin the rapids called "Dalle de Mort." The timber along these rapids has been destroyed by fire. Between the "Dalle de Mort" and Carne's Creek we passed several gangs of Chinese engaged in washing for gold in the Columbia River. From Carne's Creek (where the Columbia River crosses the limit of the railway belt above Revelstoke) down to within two miles of the Big Eddy, the valley is well wooded on the right with spruce and fir 15 inches in size; some pine is also seen on the high ground. The Big Eddy mentioned above is the only place between Beaver and Revelstoke where logs cut on the Columbia can be enclosed in booms: 50,000 logs could be boomed here. On the left of the Columbia River, from Carne's Creek to within half a mile of Eighteen Mile Creek, there is good timber (cedar 30 inches, spruce 24 inches). In the next ten miles, which brings us to "Petites Dalles," fires have made great havoc among the woods near the river. Some good timber, however, remains, including cedar of considerable In the neighborhood of Revelstoke all the timber has been killed by fire.

From Revelstoke I continued the traverse of the Columbia as far as the southern limit of the railway belt. I saw but little merchantable timber in the first six miles. Between the Illecillewaet and Akolkolex Rivers what little wood has escaped the fires is found in small strips here and there on the hills to the left of the Columbia. It consists principally of spruce and cedar from 12 to 15 inches in diameter. On the flats the cedar is often from 24 to 30 inches. From the Akolkolex to the limit of the belt there are also fringes of spruce, cedar and pine. The eastern side of the valley is somewhat better timbered, the wood being spruce, cedar and hemlock 15 inches in diameter. The best timber, however, is met with on the last ten miles before crossing the belt limit. It is mostly cedar, spruce and pine, averaging 20

inches in size.

From Revelstoke I went to Sicamous, from where I was to determine the belt limit on the East Arm and Seymour Arm of Lake Shuswap. I made a traverse of the east shore of the lake from Sicamous to the mouth of East Arm River.

The shores of the lake in the part surveyed are extremely rocky, in some parts consisting for long distances of cliffs of great height which are almost perpendicular. The only wood which grows on the high lands near the part surveyed of Lake PART II

Shuswap is fir, and that not exceeding 12 inches in diameter, and only in scattered groves.

Lake Shuswap swarms with excellent Silver Trout and Salmon Trout, the latter

often attaining a weight of twelve pounds.

The East Arm River, on which I was instructed to mark the limit of the railway belt, being found unnavigable, I began to run section lines from the extremity of the East Arm, in order to reach the limit. These lines pass through a fine forest of cedar (8 feet diameter), white pine (2 feet), fir (16 inches), and hemlock (3 feet). This forest stretches along the East Arm River and extends to Seymour River twelve miles north of the East Arm.

On the completion of my work in this locality I intend to begin the survey of

the South Pass, Eagle, Beaver, and Beaverfoot Rivers.

I have the honor to be, Sir, Your obedient servant,

ARTHUR SAINT CYR,

Dominion Land Surveyor.

E. DEVILLE, Esq., Surveyor General, Ottawa.

No. 16.

REPORT OF A. DRISCOLL, JR., D.L.S.

SUBDIVISION SURVEY AND TRAVERSES IN BRITISH COLUMBIA.

Kamloops, B.C., 7th December, 1889.

SIR,—I have the honor to submit the following report on the surveys performed by me during the past season of portions of the railway belt in the Kamloops and Ashcroft districts, British Columbia.

In accordance with instructions from you, dated the 23rd of April last, I proceeded to Vancouver and New Westminster, to make preparations for my season's operations. I then returned to Kamloops, and commenced the subdivision of Townhips 21, 22 and 23, Range 16—this, as well as all other work upon which I was engaged this season,

being west of the Sixth Initial Meridian.

On completion of the greater portion of these townships, I proceeded to Eight Mile Creek, which is situated about that distance east of Ashcroft, and, connecting with Mr. Garden's survey of 1887, worked along the creek to its intersection with Semlin's Valley, which runs north-east, connecting the valleys of Cache and Deadman's Creeks. In this survey, and in the survey of Semlin's Valley, I performed work in portions of Townships 21, Ranges 23 and 24, and Township 22, Range 22. From the junction of this valley with Deadman's Creek, I carried my survey along the latter through Townships 22 and 23, Range 23, to within a few miles of the northern boundary of the railway belt. This concluded the survey of the arable land in this vicinity. From there I went to Oregon Jack's Creek, situated about eleven miles south of Ashcroft, and performed considerable survey work in Townships 19 and 20, Range 25.

While at work here, settlers from that creek anxiously requested me to visit their places and locate them. As the season was closing I therefore shortened my work here and made a hurried trip to their claims, and picking up the termination of Mr. Garden's survey near the mouth of the creek, I ran a straight line south, with the exception of a jog of a mile, through Townships 21, 20 and 19, Range 26, locating

settlers as I went.

This finished my work of the season, and a description of the preceding localities

may now be of some interest.

Between Kamloops and the north boundary of the railway belt, on the east side of the North Thompson River and extending eastwards about 10 miles, lies a country with considerable slope to the west. It is partially timbered, but through its centre and running north and south is a long open valley, containing numerous lakes and creeks. Along these creeks are many good flats of land, which squatters were ready to occupy as soon as they were surveyed. This locality is much favored with rain, which is attributed to the dense belt of fir extending eastwards. This, of course,

makes it require far less irrigation than is customary.

Semlin's Valley, which joins Cache and Deadman's Creeks, does not average more than half a mile in width, and in some places the sides meet. Cache Creek could be made to irrigate a part of it, but all other streams are recorded, and the only cultivated land in the valley is a dairy farm, which is owned by C. Semlin, M.PP. At the junction of this valley and Deadman's Creek is an Indian Reserve, which extends from here south to the Thompson River, and contains about 3,500 acres; but, like all large blocks of land in this country, it is mostly pasture. It has, however, on both sides of Deadman's Creek (which runs through its centre), many large flats of good land, which may be converted into excellent farms, especially as the supply of water is of easy access and unlimited quantity.

It is a pity that the Indians at the lower end of this Reserve do not emulate those at the upper, some of whom possess farms of which any man might be proud; but the lower end presents a very barren appearance, and gives a most wasteful look to land which might be worked with great advantage.

From the head of this Reserve and following Deadman's Creek north lie numerous arable flats, some of which are already and others about to be homesteaded.

Below Ashcroft, in the vicinity of Oregon Jack's Creek, is a purely stock country, the limited supply of water being scarcely sufficient to irrigate the small quantity of land which has been in cultivation these last fifteen years. The climate, though, is very mild, and if the stock get even a fair amount of grass off the hills they winter tolerably well; but the range having been long in use, the ranchers are reducing the

number of cattle, and keeping them off it during the summer.

West of this district, and separated from it by high hills, lies the south fork of Hat Creek, which takes its source from within a few miles of Oregon Jack's Creek. The valley of this creek is about two miles wide, rather open, and plentifully supplied with water from Hat and Anderson Creeks. The present settlers, of whom there are quite a number, all settled here about three years ago, and the valley being about fifteen miles long, I have no doubt that there will be many more here soon. The location is rather high, but the crops grown this year were all that could be desired. Another advantage this valley possesses is the location of a coal mine here by Messrs. McNichol & Finney, of Ashcroft, who have discovered a most wonderful seam of coal in Section 12, Township 21, Range 27. At the time of my visit to it this autumn they had sunk a shaft 80 feet deep, and half way down had drifted in 50 feet, and in all their workings had struck nothing but coal. The quality is soft, and though not very good on the surface, it much improves as a further depth is attained. The C. P. R. authorities think so highly of it that they intend, I believe, to further develop it with a diamond drill, and if indications are still favorable, build a branch line to the mine, a distance of about 25 miles from Ashcroft, as the line would have to go, although it is only about 14 miles in a straight line. The working of this mine would be of great benefit to the surrounding country, and also to the C. P. R., which has at present to bring its supply of coal some hundreds of miles, either from the East or West. As directed, I here give the information gathered on the timber of the country coverd by my survey. I should first say, though, that the part covered is not generally considered a timber-producing country, but rather a grazing one, and that situated as it is, away from any rivers or lakes, the timber treated of would not, on account of the expense of getting it out, be used for lumber purposes, until those great belts of timber contiguous to the South Thompson River and Shushwap Lakes were exhausted, which time is considered very remote.

About two miles up from the mouths of Hefferly and Sullivan Creeks, belts

of yellow pine are seen, timber averaging from $1\frac{1}{2}$ feet to 3 feet in diameter. The belts extend on each side of the creeks for about half a mile, and then begin to intermingle with the fir trees which grow on the hills, the fir being about the same size as the pine. Good timber is made from these trees, but on account of their being a long distance apart, an average yield to a square mile would not exceed 9,500,000 square feet. Twenty-five square miles could be obtained, necessitating, however, a haul with horses of from 4 to 10 miles; but as it would be all

down grade the pull would not be very heavy.

In Semlin's Valley the yield would be about the same to a square mile, and the quality a mixture of yellow pine and Douglas fir, averaging from $1\frac{1}{2}$ to $2\frac{1}{2}$ feet in diameter. Egress from the valley could only be obtained by way of Cache Creek. Where the creek and valley join we found a wagon road, a charcoal pit, and the remains of an old saw-mill, which were in use here before the construction of the C. P. Railway. This valley would yield about ten square miles.

In the vicinity of Hat and Oregon Jack's Creeks the timber is only fit for

building and fencing purposes.

Great satisfaction is expressed by the people of the surrounding country at the establishment of a land office in Kamloops, a want which was much felt, and also at the report that the pasture land within the belt was to be open to purchasers at the same rate as Provincial land outside the belt. In fact, the feeling is general throughout this district that the Dominion Government is trying to meet the wishes of the people in all matters pertaining to the land within the railway belt.

I have the honor to be, Sir, Your obedient servant,

A. DRISCOLL, Jr., D.L.S.

E. Deville, Esq., Surveyor General, Ottawa.

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No. 17.

REPORT OF J. A. KIRK, D.L.S.

SUBDIVISION OF TOWNSHIPS AND FIXING BOUNDARY OF RAILWAY BELT IN BRITISH COLUMBIA.

CAMP NEAR HARRISON, B.C., 2nd December, 1889.

SIR,—I have the honor to submit the following report on the surveys I have executed for the Department of the Interior this year.

In accordance with your instructions I proceeded to New Westminster, B. C.,

on the 5th of April.

Having made the necessary preparations for the work, I left New Westminster on the 18th of April to subdivide the lands at the lower end of Stave Lake. The first operation was to run a tie line from a survey station of the Canadian Pacific Railway to the place of commencement. The lands subdivided are portions of Town ship 18, east of the Coast Meridian, and Townships 3 and 4, Ranges 2 and 3, west of the Seventh Initial Meridian.

They lie for the most part along Cascade Creek—a name I considered appropriate, as the stream descends a mountain in a series of cascades. Reaching the adjacent bottom lands it flows in a westerly and north-westerly direction through Section 36, Township 18, east of the Coast Meridian, Sections 32 and 33, Township 3 (fractional), and Sections 5, 6, 7 and 12, Township 4, Range 2, west of the Seventh

Initial Meridian.

The land for a width of from a quarter to one mile back from the creek on both sides is timbered principally with alder; the soil is rich sandy loam. Leaving Section 12, the stream pursues a more northerly course to Stave Lake, which it enters a short distance east of Stave River, the outlet of the lake. The character of the soil remains unchanged, the timber is mostly hemlock and cedar. The valley of Cascade Creek is fully 20 to 30 feet higher than Stave River, and is not subject to floods.

With an unusual freshet the creek might overflow; but the removal of accumulated *debris* from its channel would double its carrying capacity and overcome the difficulty. The creek is about 15 feet wide at the base of the mountain; three

miles further on it is 80 feet.

Sheltered by mountains to the north, east and west, and well exposed to the sun, this valley will probably prove a good locality for fruit culture. Several of the claims are already occupied. When making the survey the settlers were away—probably at work elsewhere, as is the custom here in summer.

The next survey was fixing the boundary of the railway belt by traversing Harrison River and both sides of Harrison Lake to the twenty mile limit. On this work a Lugeol micrometer was used to measure distances. Five readings were taken for each course, their mean being afterwards reduced to Gunter's chains.

Astronomical observations for azimuth were taken at frequent intervals, and the angular measurements converted into astronomical bearings. The boundary of the railway belt was determined in the manner prescribed in your instructions, and at its intersection with those lines large posts, marked R.B.L., were erected in stone mounds.

Harrison Lake may be considered an expansion of the Lilloet River. This river rises near the fifty-first paralled, and flowing south-easterly through a narrow valley, it widens for the last forty miles of that course into Harrison Lake. Within half a mile of the foot of the lake, on the west side, a channel suddenly opens to the south-west, through which the waters—now known as Harrison River—find their way for ten miles further, and then fall into the Fraser River, close to Harrison Station. Both river and lake are navigable for steamers similar to those in use on the Fraser. Mountains from three to eight thousand feet high rise from both shores.

The railway belt extends over twenty miles up the lake on the east side, and over eighteen miles on the west side. Within this limit there are two large islands,

named Long and Echo Islands, respectively; and several streams discharge their waters into the lake through narrow valleys, or down the mountain slopes in beautiful cascades.

The distinctive features of the opposite shores differ widely. On the west side from Harrison River, north, the mountains rise gradually from the shore without a break, the crest of this long ridge attaining its greatest elevations far inland. A few small streams, or rather torrents, rush down the slope, the most conspicuous being

Eagle Falls, which enter the lake with a plunge of about 50 feet.

These falls are nearly ten and a-half miles from the foot of the lake. Four and a-half miles north of this point the lake attains its greatest width-five and a-half Long Island extends northerly over five miles from a point almost directly opposite Eagle Falls, and Echo Island—remarkable chiefly for its bay with seven echoes—lies about five miles to the south.

The east shore is broken by valleys, and the mountains are precipitous.

The Rainbow Falls, six and a-half miles from the lower end of the lake, decidedly the most beautiful of the many objects of interest on the lake, dash from ledge to ledge down the mountain side for 1,700 feet, in a succession of falls varying from 70 to 300 feet. Glimpses of some of the higher cascades are seen from the lake.

A judicious trimming of the trees would reveal at one view the fascinating beauty of this wild scene. At present, owing to the labor of climbing the mountain,

the higher falls are seldom visited.

Continuing up the shore twelve and a-half miles we come to Silver Creek, the largest stream entering the lake within the limits of the railway belt. Canoes can be poled up for two miles from its mouth, but from this point numerous rapids make further progress impossible. The valley through which it runs—the first mile of which I subdivided is broken with spurs from the adjacent mountains, and varies in width from a quarter to half a mile. The soil is a sandy loam of good quality.

Fir and cedar 1 to $\tilde{5}$ feet in diameter grow in the bottom.

The valley in which Harrison Lake lies extends southerly to the Fraser.

Some progress has been made in regard to a knowledge of the resources of this district. Close to the south shore two mineral springs, possessing remarkable medicinal properties, issue from the mountain side at a high temperature. They are known as the St. Alice Wells, or Harrison Hot Springs. Near by a town plot has been laid out, and a first-class hotel erected. Limestone near Eagle Falls, sandstone and marble above Rainbow Falls, a pigment pronounced by experts to be sienna earth, near Silver Creek, a bed of brick clay underneath the town plot, and several silver-bearing lodes, are said to have been discovered. Doubtless, further prospecting would soon swell the list.

The mountains are well wooded with Douglas fir of inferior quality and size: the timber mentioned as growing in the Silver Creek valley is of good quality, but limited in area. On the opposite shore, from a point a little more than fifteen miles up the lake to beyond the limits of the railway belt, there is a belt of timber extending back perhaps a mile and a-half, similar to that of Silver Creek, known as

Trout abound in the creeks, and on the hill sides grouse are plentiful. Later in the season, when snow drives larger game to lower levels, deer, goats, mountain sheep, black bears, and sometimes the formidable grizzly, afford splendid sport.

This work being completed, I proceeded to the south bank of the Fraser, to complete some surveys in Township 27, east of the Coast Meridian, where I am

now engaged.

With the exception of the inconvenience arising from the smoky atmosphere in July and August, the season has been very favorable for surveying, the rainfall being light, and the mosquito a rara avis.

I have the honor to be, Sir,

Your obedient servant,

E. DEVILLE, Esq.,

J. A. KIRK, D.L.S.

Surveyor-General, Ottawa, Ont. 60

PART II

No. 18.

REPORT OF JOHN VICARS, D.L.S.

SURVEY IN NEW WESTMINSTER DISTRICT.

VANCOUVER, B. C., 2nd December, 1889.

Sir,—I have the honor to submit the following report of my operations during the past season.

Acting under your orders I left Cannington on 1st May and proceeded to Van-

couver, B.C., where I received my instructions for the season's operations.

After a few days' delay in getting my camp equipage and supplies ready, I proceeded to Township 10, east of Coast Meridian, to perform some subdivision surveys which had been omitted in the first survey. These completed, I proceeded to Township 11, east of Coast Meridian, where I also made some subdivision surveys, which had been similarly omitted. Both these townships are admirably adapted for agricultural purposes. The soil is rich—principally loam. Both townships are entirely taken up by settlers, who have from one to fifty acres of clearance, mostly under crops, which, at the time I was there, were in a flourishing condition. I saw new

potatoes dug on the 1st June.

The timber in Township 11 has practically been destroyed by fire, though certainly enough still remains for building and fencing purposes, or even to supply a portable saw-mill for a few years. The timber in Township 10 has also been greatly damaged by fire, though not to the same extent as in Township 11. Groves of timber containing from 100 M. to 500 M. feet can be found in almost any section in this township; and in Sections 19, 20, 21, 28, 29 and 30 there is a magnificent belt of timber containing not less than 200 million feet, of which two-thirds would be fir, and the remainder equally divided between spruce and cedar. Trees of from 8 to 9 feet in diameter and 140 feet clear of branches are not uncommon. I measured several which are larger. There are several large creeks running through this township, which, if properly cleaned and dammed, I have no doubt could be utilized to take out this timber.

Having finished the work in Township 11 I started for New Westminster Junction, from which point I traversed Coquitlam River and Lake as far as the northern boundary of the railway belt. The river northward from the junction is broad, rapid, shallow, and full of boulders and shoals. It is not navigable, but with some improvements, in the shape of side piers, it might easily be made available for transport of timber.

Six and a-half miles from Westminster Junction lies Coquitlam Lake, a beautiful sheet of water, having a length of about seven miles and a breadth varying from 25 to 40 chains. It has an altitude of 435 feet above the level of the sea, and is about

to be used as a water supply for the city of New Westminster.

From Coquitlam Lake north the river is simply a succession of rapids and cascades, and it rapidly grows smaller until its source (a small lake) is reached. This is just within the railway belt, and from its shores some of the grandest scenery in the mountains was seen. To the south-east extended field on field of snow; to the south lay the valley of the Coquitlam, broken, rugged and narrow; to the west and north rose bare, rugged mountains, reaching to the clouds; and the lake itself lay in what looked like the crater of an extinct volcano.

There is little available agricultural land along the Coquitlam, though a few patches of from 50 to 500 acres may be found here and there. Its basin is heavily timbered with valuable trees, consisting of fir, cedar and hemlock in the valley, and cypress and larch on the mountains. This timber, in which cedar will

predominate, should average at least 40 M. to an acre.

Having finished the Coquitlam traverse I next ran out certain section lines in Township 39, west of Coast Meridian, and then proceeded to Port Moody, from which point I traversed Burrard Inlet and the North Arm as far as Bidwell Bay. Here I was so much retarded by rain and fog that I did not consider the amount of work I was doing justified my remaining in the field in that locality any longer, so I returned to Vancouver, intending to close work for the season, when I received your instructions regarding verification survey in Township 5, Range 27, west of 6th Initial Meridian. This I will proceed to perform at once.

There is some fair agricultural land along Burrard Inlet which is mostly taken up for fruit or vegetable culture, for which it is admirably adapted.

One settler with whom I was speaking informed me he had raised four tons of strawberries during the past season, and sold them at an average of 10 cents per pound.

> I have the honor to be, Sir, Your obedient servant,

> > JOHN VICARS, D.L.S.

E. DEVILLE, Esq., Surveyor-General, Ottawa.

No. 19.

REPORT OF EDGAR BRAY, D. L. S.

SURVEY OF TOWNSHIP OUTLINES BETWEEN LAKES WINNIPEG AND MANITOBA.

OAKVILLE, ONT., 6th June 1888.

Sir,—I have the honor to submit the following report of my survey of block lines and other township outlines lying between Lakes Winnipeg and Manitoba, and of the country covered thereby.

I left Winnipeg on the 14th of October, and on the 17th we camped in the north-

erly part of Township 19, Range 4, west of the Principal Meridian.

From examination and enquiry I found that the posts in Townships 19 and 20, Ranges 3 and 4, were in a good state of preservation and the lines easily found.

In Townships 19 and 20, Range 5, no mounds were found. The lines are overgrown with brush, &c., and cannot be easily followed, while the posts shew the effects of age and frequently of fires, though some part of the post can nearly always be found in the ground. I cut out, in these townships, 40 miles of line, and set new posts in place of old ones.

The swamps being then sufficiently frozen to bear horses, I moved camp on the 28th October to Lundyville (Lilly Bay), where I stored my supplies, &c., and com-

menced cutting out a cart trail to the north, moving camp at the same time.

We were much delayed by a thaw which set in on the 3rd of November and lasted almost until we arrived at the 7th Base Line on 17th November. Here we were again delayed by clouds and snow which prevented my taking an observation until 24th November, when work was commenced by running the line between Ranges 6 and 7, west of the Principal Meridian, beginning at the 7th Base Line.

The work was continued all the winter, with only occasional delays, caused by

snow storms, &c., which prevented sights along the line.

On 28th March I started for Winnipeg, and arrived there on the 2nd of April, when the party was paid off.

Below is a description of the country covered by my surveys.

Meridian Line between Ranges 6 and 7, west of Principal Meridian.

Township 25 is timbered land, with some hay marshes. The northerly section is covered with poplar and pine of fair quality. The remaining five sections are timbered with poplar, of which a considerable portion has been killed by fire.

The township is nearly level, and appears to have a very fair soil.

Township 26 is also nearly level land with some hay marshes. It is covered with woods of poplar, pine and spruce, the greater part of which has been much damaged by fires.

The soil is either sandy or clay loam and is of fair quality.

Township 27 is composed of nearly level land with a fair soil. It is mostly covered with pine, spruce and poplar, but the greater part of the wood has been killed by fire.

Township 28 is mostly good, level land, timbered with poplar, pine and spruce which has been more or less damaged by fire, except on or about Section 24, where

the woods have not been injured.

At and near the north boundary of this township, the timber has mostly fallen and a new growth of pines has started.

8th Base Line.

In Range 6 there is windfall in Section 31, and part of Section 32, from which point, eastward, pine woods extend for about three miles, when marshy and swampy land occurs, extending east of the range.

PART II

The land is level and the soil good in Sections 31, 32, 33 and 34, and swampy in

Sections 35 and 36 excepting on a couple of ridges found in Section 35.

Range 7 has a nearly level surface and is composed of good land broken by hay marshes. Part of Section 36 contains windfall or marsh, the rest of the section, with all of Section 35 and about one half of Section 34 is timbered with pine, spruce and some poplar.

Going west from the middle of Section 34 we find the timber all dead and mostly

fallen.

Range 8 is generally good level land, broken by numerous hay marshes. Some dead and fallen timber is found in Section 36, but the remainder of the range is well

timbered with poplar, spruce, tamarac, etc., frequently of good size.

Range 9 is composed of low ridges of good land, separated by hay marshes, the ridges being timbered with poplar, spruce, etc., of good quality, and frequently of very fair size. The west half of this range will be too wet for cultivation.

Meridian Line between Ranges 6 and 7.

Township 29 is fair level land, broken by marshes, excepting in Section 36 where a stony tract is entered.

Good timber of pine, spruce and tamarac has covered this township, but it is

now nearly all dead and mostly fallen.

Fixed limestone rock can be found almost anywhere in Township 30, and therefore the soil is poor and shallow. Bluffs of green woods were passed in Sections 13, 25 and 36. Elsewhere the timber has been killed by fire, but is still standing.

Township 31 has a poor soil, the southerly four miles being rocky, while the northerly two sections are swampy. Sections 20 and 36 are wooded with small spruce and tamarac. Some pine was found in Sections 1 and 12. In other sections the

timber is dead.

Township 32—The southerly three-fourths of Section 1 is swampy and covered with small spruce and tamarac. Next, a tract of good land was passed over, about 50 chains in width, covered with good spruce, poplar, tamarac and birch; then a hay marsh was crossed and Lake St. Martin reached in the north-easterly quarter of Section 12. The meridian was produced on the ice of Lake St. Martin to the 9th Base Line, and in Section 25 crossed a point of land on which there is an extensive hay marsh.

9th Base Line.

Range 7, Sections 36, 35 and a small part of 34, lie in St. Martin's Lake. The remainder of the range containing level land with good soil is covered with woods of poplar, spruce and tamarac, often of good size and quality, though in Section 6 the timber has been killed, and in some other sections somewhat damaged by fires.

Range 8 is composed of good land somewhat broken by hay marshes, and, excepting a ridge in Section 34, the surface is nearly level. The easterly sections of the range are timbered with mixed spruce, tamarac and poplar, while those to the west are covered with poplar woods with scattered spruce. This timber is mostly of good

quality, but some tracts were found where damage had been done by fire.

Range 9 is good level land, alternating with marshes It is mostly wooded with poplar and scattered spruce, the timber being often of considerable size. In Section 35 a rough, rocky tract was found, which probably is a part of the Gypsum Hills, though only common limestone was noticed. Where the line crosses this tract the elevation is only a few feet above the surrounding country.

Meridian Line between Ranges 8 and 9.

Township 32 has mostly a level surface, and, excepting a marsh in section 24, the soil is a good, dry sandy loam. It is timbered with poplar, mixed here and there with spruce, which is often of good size and quality. All the southerly half of this township has been overrun by fire and the timber somewhat damaged. Fire has also destroyed some timber in Section 25.

Township 31 is also comparatively level, and the soil generally a good, dry, sandy loam. It is wooded with poplar of fair size, which has been partly killed by fire.

Meridian Line between Ranges 7 and 8.

Township 32 is level land, and, excepting in the marshes, the soil is a good, sandy loam. Nearly the whole of the northerly three sections has been timbered with mixed woods of spruce, tamarac and poplar, but it has been very badly damaged by fires. The remainder of the township is wooded with poplar of fair quality. Section 1 lies in Lake St. Martin.

Through Township 31 the line was run on the ice on Lake St. Martin.

Through Township 30 the line for about a quarter of a mile of Section 36 and nearly all of the jog is on an island in St. Martin's Lake. This island is mostly wooded with poplar and birch, which is now partly dead. South of the lake (Sections 1, 12 and part of 13), the land is generally of fair quality, and is heavily timbered with mixed woods of spruce, pine, tamarac and poplar.

with mixed woods of spruce, pine, tamarac and poplar.

Township 29 is mostly good, level land with a fair soil of sandy loam. It is timbered with a mixture of spruce, pine, poplar and tamarac of very fair size, but in most of the southerly half of the township the woods have been very badly dam-

aged by fires.

It will be noticed from the above that the timber in considerable portions of this survey has been badly damaged by fires, which appear to have swept through the country about two years ago. In some localities the timber has been entirely killed; and, as so much inflammable material now covers the ground, it is nearly certain that another fire will run over this tract and convert considerable areas into prairie. At present the dead timber is mostly sound, but of no value, as no means exist by which it can be taken to a market.

I believe the country in Townships 25 to 32, in Ranges 8 and 9, will be found more suitable for settlement than that lying farther east, as no rocky land was

noticed in these townships.

It is an objectionable feature in this district that the land is very flat, and likely to be wet in rainy seasons. However, as plenty of hay land exists, stock raising will be profitable, more especially in some tracts near St. Martin's Lake, where very large meadows were noticed.

In this locality the winter season will probably be found the most favorable for

surveying operations.

I have the honor to be, Sir, Your obedient servant,

EDGAR BRAY, D.L.S.

E. Deville, Esq., Surveyor-General, Ottawa.

No. 20.

REPORT OF W. T. THOMPSON, D.T.S.

SURVEY OF TOWNSHIP OUTLINES.

Sir.—Having completed the survey of the 4th Base Line and Meridians running north from it, between the 3rd and 4th Initial Meridians, on the 16th of August, 1882, I at once set out with my party for Edmonton via the Forks of the Red Deer River, from where I forwarded, on the 28th of August, a report on the above named survey; and, leaving on that date, struck out over the plains in a nearly direct course for Edmonton, where I arrived on the 16th of September. About one half of my supplies had arrived here by the last steamer, and I was informed by letter that the balance had been forwarded from Qu'Appelle by cart on the 1st of September and would probably reach Edmonton by the 15th of October. I arranged, however, with the Hudson's Bay Company and others for a supply of the leading articles of which I was short, to be replaced on arrival of carts, and as there appeared no probability of my being able to procure a York boat at Athabasca Landing, we set out on 22nd of September for the Pembina River, via the old cart trail of the Hudson's Bay Company, and arrived there on the 28th. Here a saw-pit had been constructed by Lloyd and Haye's party, who built a boat and went through to Lesser Slave Lake in the spring of 1882.

At this place we prepared two rough flat bottomed boats to carry the outfit and supplies, and on the 9th October, all the freight having arrived from Edmonton, we loaded the boats and started down the river, arriving without mishap at the

mouth of Lesser Slave River on the 16th of October.

The country and journey from the Forks of Red Deer River to Edmonton and thence to the foot of Lesser Slave Lake, have been already described in my reports of progress dated 30th September and 22nd December, 1882. At the mouth of the Lesser Slave River I expected to find a Hudson's Bay boat to forward the supplies up the river, which is rapid and difficult to ascend. No boat being on hand I decided to advance the supplies as far as possible with the means at my disposal, and on the 1st of November reached the head of the rapids with the whole, a distance of 18 miles from the mouth.

Finding it impossible to proceed further with all the supplies, the greater portion were cached here, and with one boat containing the balance we reached the foot of Lesser Slave Lake on the 12th November, a distance of 53 miles from the Athabasca, having been much impeded for several days by floating ice in the river.

The ice had now begun to set on the river and lake, preventing our advancing further, and, the country eastward from the foot of the lake being low and marshy, work could not be commenced till the ice had formed over this region. In the mean-

time the party were employed preparing sleds for moving the camp, &c.
On the 12th of November I sent a messenger to the Hudson's Bay Company's post at the head of the lake for certain articles required, and requesting three dog trains to be sent down for camp shifting as soon as the ice had formed. On the 9th December, the ice being sufficiently strong, work was commenced by running eastward from the foot of the lake, and the dogs not having arrived the camp outfit was shifted on sleds drawn by members of the party.

On the 22nd of December two dog trains arrived from the head of the lake, after which we advanced more rapidly, and on the 16th of January reached the mouth of Lesser Slave River, a distance by the traverse lines of thirty one miles from foot of

lake.

Here I blazed a tree, marking same station "O," and left a note for Mr. Ogilvie requesting him to send me a memorandum giving the position of this point in reference to his meridian, and then set out on our return.

66 PART II The native drivers having become dissatisfied had left with their trains several days previously. We were now obliged to draw the sleds to the foot of the lake, where two fresh trains and drivers met us on the 22nd of January.

The traverse was now continued westward, towards the head of the lake, which was reached on the 9th of February, a distance by the traverse lines of sixty four

miles from the foot.

From the head of the lake the lines were run in a general westerly direction, through lightly timbered country, towards the junction of the Little Smoky with Smoky River, which was reached on the 6th April, and camp shifted to the west side of the river.

The snow was now fast disappearing, and the country becoming so wet that work had to be discontinued, and the dogs and drivers were sent back to Slave Lake. I next employed myself making computations to correct and reduce the traverse, so that, upon hearing from Mr. Ogilvie, there might be no delay in determining my position.

On the 6th of May six pack horses were got in from Dunvegan, and finding from the assumed longitude of the mouth of Lesser Slave River that I had about thirteen miles yet to go before reaching the 118th Meridian, work was at once resumed, the line being continued westerly through densely timbered country, with numerous marshes and beaver ponds.

Or the 31st of May a messenger arrived from Mr. Ogilvie, giving the position of my initial point at the mouth of Lesser Slave River, from which I found that I had yet two miles to go to reach the 118th Meridian, and on the same day the line was

completed to the meridian.

I here took observations for latitude by transit over the Prime Vertical, and found the point of observation to be 5" too far south as compared with the computed latitude obtained from the length and direction of the line joining the initial and terminal points of the survey. The station, however, was not favorably situated, the Birch Hills lying close to the north and a depressed tract of country extending to Smoky River on the south, thus having a tendency to make the observed less than the geodetic latitude.

I therefore made only a small correction to the computed latitude, and commenced surveying the 6th Initial Meridian northwards, and temporarily posting the same, my intention being to obtain further observations at different points on the meridian, which, connected by the chaining, would give a closer value of the geodetic latitude. Up to the date of Mr. Ogilvie's arrival on the 20th of July, however, no further observations were obtained, owing to unfavorable weather, and he at once commenced the survey of the 21st Base Line, working westward from my meridian.

On the 10th August I had completed the survey of the meridian to the latitude of the 22nd Base Line, nearly at the summit of the White Mud Hills, which are covered with brulé and windfall, and finding further progress northward difficult, I concluded to turn west on this base, which, according to the map and Indian reports, would pass through comparatively open fertile country. It would also afford the means of fixing the position of the 120th Meridian or British Columbia boundary.

On the 20th of September a distance of 50 miles had been surveyed, and, supplies becoming scarce, I decided to complete the range upon which I was working (a

distance of four miles), and return east.

On the above date three members of the party, with eight horses, were accordingly sent out to proceed via old Fort Assiniboine to Edmonton, my assistant leaving at the same time with one man to permanently post the meridian on the south side of Peace River, and then proceed via the Forks of Little Smoky River to Lesser Slave Lake, where he would await the arrival of myself with remainder of party. On the 22nd, however, a supply of provisions arrived unexpectedly from Dunvegan, and, the country becoming more open, I considered it advisable to continue to the boundary, which was reached on the 8th of October.

This completed the work for the season, and opening a trail southward to Peace River for the pack horses (a distance of ten miles), we reached it on the 10th. Here we constructed a raft to carry the party and baggage, and proceeded down the river

on the 12th, reaching Dunvegan on the 15th, where we obtained a York boat, and leaving on the evening of the 16th reached the Peace River Landing on the 18th, The horses which had been sent east via the Fort St. John trail arrived on the 20th. Four carts had been left here for me by the Hudson's Bay Company to carry the baggage, and leaving on above date we reached Lesser Slave Lake on the 25th. Here we obtained a York boat for the trip to Athabasca Landing, and set sail down the lake on the 26th. At Big Point we took on a pilot for the descent of Lesser Slave River, which, owing to low water, was reported difficult to navigate except for one intimately acquainted with the channel. On October the 31st we reached the Athabasea without mishap. Fragments of ice were now floating in this river, and the water was so shallow that our boat, though drawing only 18 inches of water, frequently grounded on the gravel bars. In high water, however, the depth varies from 10 to 20 feet.

We reached Athabasca Landing on the 3rd November, and travelled thence by cart to Edmonton, a distance of ninety-six miles. Here we were delayed from the 8th to the 12th, the ice on the Saskatchewan not being sufficiently strong to allow the horses and carts to cross. Leaving on the latter date, the party reached Calgary on the 22nd, and Winnipeg (by rail) on the 25th.

Description of the Country in the Vicinity of my Lines of Survey.

The country on both sides of the Lesser Slave River, as far as I have been able to ascertain, is densely timbered with spruce, poplar and jack pine. There are many spruce and tamarae swamps, alternating with poplar and jack pine ridges, the soil on the ridges being generally of fair quality. The country, generally, is not suitable for agricultural purposes.

Westward from the head of Lesser Slave Lake for about ten miles the land is low and marshy; thence west to within a few miles of Smoky River it is a slightly elevated plateau, containing a number of grass marshes, and broken by occasional ridges, and timbered with poplar and spruce, with the exception of a

few openings made by fires and now partially overgrown with willows.

The soil is generally of fair quality, and a considerable portion of this tract is suitable for agricultural purposes. Along the east bank of Smoky River there is a belt of marshy or boggy land about two miles in width and extending some distance to the north. The banks of Smoky River, where the line crossed, are fully 400 feet high. In the valley there are some fine fertile benches, the largest containing about 300 acres, with prairie openings. Westward from the river to the 6th Initial Meridian, a distance of 15 miles, the country is densely wooded with poplar and spruce, and is somewhat broken by knolls and ridges, all the low ground being occupied by marshes and beaver ponds.

The wet condition of the country is caused entirely by beaver dams, which are

found on every little creek.

Northward from the terminal point of my traverse to Peace River, a distance of eighteen miles, following the 6th Initial Meridian, the country is densely wooded, except a narrow belt on the north side of the Birch Hills. The surface is broken by knolls and ridges, and the low ground is occupied by marshes. The soil is a sandy loam of fair quality, with white silt subsoil.

Peace River was crossed on the 6th of July, about 25 miles east of Dunvegan. Here it flows with a strong current among islands, its width being nearly half a mile

and depth about 25 feet in the centre of the channel.

Northward from the river the country traversed by the meridian is, with the exception of some small prairie openings, generally wooded. A part has been burnt over, leaving a good deal of brule; there are some extensive grass marshes, and several muskegs. The soil, generally, is of very good quality. In the vicinity of the cart trail to Dunvegan, which was crossed eleven miles north of the river, the line passes through about two miles of prairie, and looking eastward extensive tracts of open prairie were seen. Twelve miles north of the trail the foot of the White Mud These are covered with dense brulé and windfall, the timber Hills was reached.

68 PART II being chiefly spruce, from 10 to 40 inches in diameter. The greater part of the timber is still valuable, having been only slightly scorched by fire. Six miles from the foot of the hills the latitude of the 22nd Base Line was reached, and finding the country for a considerable distance to the north covered by a dense brulé and windfall, I did not consider it advisable to proceed further in that direction, and turned west on 22nd Base Line, which, according to the map and Indian reports, would pass through comparatively open country, well suited for agricultural purposes.

The north limit of Township 84, Range 1, west of the 6th Initial Meridian, lies in the White Mud Hills, which, as before stated, are mostly covered with brulé and windfall, and, the surface mould having been burnt off, the soil is generally inferior.

Range 2 is somewhat broken by hills and ridges, timbered with green poplar

and some spruce, with a few small prairie openings.

Range 3.—The country is hilly, and timbered with poplar and spruce; good

loam soil, with white silt subsoil.

Range 4.—Surface undulating, timbered chiefly with poplar, except Sections 32 and 33, which are nearly open prairie. On section 33 a small creek, tributary to Island Creek, was crossed.

Range 5.—Surface nearly level. Sections 35, 34 and 33, prairie and bluffs; the remaining sections timbered with poplar and willow, with some spruce brulé. Soil

of excellent quality.

Range 6.—Level country, generally burnt over. We crossed the east fork of the Montagneuse River in Section 36; its valley is 200 feet deep and half a mile wide; the river is 50 links wide and 1 to 2 feet deep, and very rapid, flowing over stones and boulders, its depth in high water increasing to 6 or 8 feet; the valley is covered with dense brulé and windfall. The west fork of the same river was crossed in Section 33; the banks are 150 feet high, and the creek 10 links wide. Soil of excellent quality.

Range 7.—Land generally low and swampy, alternating with fine poplar ridges. Range 8.—Sections 36, 35 and 34 are much broken by deep ravines running down to Peace River, which is about half a mile south of the north-east angle of Section 35. The above named sections are covered with spruce and poplar brulé; the remaining sections are timbered with large poplar. The soil is clay loam of excellent quality; subsoil clay.

Range 9.—Surface level, timbered with poplar, jack pine and spruce; occasional

marshes and swamps. The soil is generally of good quality.

Range 10.—Level country, partly burnt over; a few ridges of jack pine and

poplar, remainder brulé, with second growth of willow. Soil, class 1.

Range 11.—Level country, covered generally with jack pine brulé and windfall, and second growth poplar and willow. We crossed the Clear River at the north-east angle of Section 32, the valley being one mile wide, and the banks 450 feet above the river, which is about 50 yards wide and from 1 to 3 feet deep, rising to 10 feet in high water.

Range 12,—Sloping to west; timbered with fine green spruce and poplar, with

some brulé. Soil, class 2.

Range 13.—Sections 36 and 35, spruce muskeg; Sections 34 and 33, covered with poplar and jack pine brulé. Soil, class 2.

DESCRIPTION OF PEACE RIVER.

From the mouth of the Clear River to the landing, which is about three miles east of the forks of Smoky River, I made a running traverse of Peace River, taking numerous soundings. Between these points the river flows in a trough-like valley from 700 to 1,000 feet deep, and one to three miles from rim to rim. At the Clear River perpendicular exposures of a whitish sandstone of compact structure rise from the water's edge to a height of 20 or 30 feet on both sides. About six miles down the river exposures are seen several hundred feet above the water; here the sandstone has been much eroded, leaving pillars and very picturesque forms; outcrops were seen at intervals all the way to the landing.

The depth of the river was found to vary from 3 to 30 feet, the former being near the mouth of the Montagneuse River, where the channel is broken by islands and sand bars. In high water, however, the depth in the shallowest part must be at least 15 feet.

The width varies from 1,000 to 3,000 feet, and the current from two to six miles per hour. The south bank is densely wooded with spruce and poplar, with some birch at intervals; the north bank is generally sparsely wooded with a light growth of poplar, and in many places is quite open. There are few benches of any extent, except at Dunvegan, and again near the forks of Smoky River. On the north side of the Peace River there are some fine extensive benches, elevated from 20 to 80 feet above the river, and well adapted for agricultural purposes.

The following streams, affording suitable sites for mills, empty into the Peace from the north, viz., Clear River, Montagneuse River, Little Burnt River, and a large

creek six miles west of the Landing.

From the Landing to Lake Athabasca I am informed by officers of the Hudson's Bay Company that no impediment to navigation exists, except at the Falls, below Fort Vermilion, 120 miles west of Athabasca Lake. The fall is said to be 10 feet, and I am imformed on the same authority that locks could be constructed to pass this obstruction without great expense.

I may point out that from the east end of Athabasca Lake to Fort Churchill, on Hudson's Bay, the distance is somewhat less than 400 miles. The intervening

country is reported as level, and containing a number of muskegs.

GENERAL REMARKS ON THE PEACE RIVER COUNTRY.

On the fertile tracts in the Peace River Basin the following are the most accessible, and, as far as I could ascertain, the best suited for agricultural purposes:

1st. The Grand Prairie region lying thirty miles south of Dunvegan, and bounded on the east by Smoky River, containing about 230,000 acres. The soil is described by Dr. Dawson as of the finest quality; the surface is diversifed by aspen ridges, and serviceberry coppice; the Indians collect large quantities of serviceberries here and dry them for future use. This region is described by the officer in charge of the Hudson's Bay Company's post as being a very fertile and beautiful tract of country. The distance from the east limit of the Grand Prairie in a nearly direct course to Edmonton via Dirt Lake is 240 miles, while by the usual land and water route via Athabasca Landing and Lesser Slave Lake it is 450 miles. From what I can ascertain, it would be quite practicable to construct a road in a nearly direct course, as stated above, and this would afford the best means of access to the Grand Prairie region, and the road could then be continued to Dunvegan, a distance of thirty miles, which would give connection with Peace River and the country to the north.

2nd. The country in the vicinity of the trail from Peace River Landing to Dunvegan, a distance of 65 miles, is mostly prairie, dotted with bluffs of poplar and willow; the soil is very fertile and appears to be well adapted for agricultural purposes. Between the Little Burnt River and Dunvegan, a distance of about 20 miles, the country is very fine; extensive prairie openings are separated by bluffs of large-sized poplar, the approximate area of prairie and bluffs being 300,000 acres.

3rd. From Island Lake to the British Columbia boundary, following the Fort St. John trail along the foot of the Clear Hills, there is a considerable amount of fine prairie land, most of this tract lying north of the 22nd Base Line. Approximate

area of prairie and bluffs, 100,000 acres.

4th. Besides the foregoing, there are the following fertile prairie tracts, viz., small areas of prairie south of Dunvegan, the White Mud prairie lying about 20 miles north-west from Peace River Landing, and the Battle River prairie, lying north of Battle River. As to the tract lying north of Battle River, I have been unable to get any accurate information. It is stated, however, that the trail to Fort Vermilion passes through a large amount of prairie and bluffs. Except the tracts above described, the country is generally densely wooded with spruce and 70

poplar, the former from 10 to 40 inches in diameter, and the latter sometimes reaching 20 inches. The spruce, especially, is well suited for lumber, spars, &c.

The map sent herewith shows in a general way the distribution of prairie and

woodland, and the leading topographical features of the country.

But little attempt at farming has yet been made in the Peace River country. At Dunvegan the Hudson's Bay Company and Roman Catholic Mission have each, for a number of years, cultivated a few acres of land in the valley, growing wheat,

barley, and the different kinds of vegetables successfully.

In the spring and summer of 1883 there were a number of severe frosts, from which the crops of vegetables at Dunvegan suffered to some extent. The grain, however, was not injured. The yield of wheat on the Hudson's Bay Company's land was estimated at 30 bushels per acre; at the Roman Catholic Mission 20 bushels were raised on one-third of an acre, which had been very carefully cultivated. No attempt at cultivation worthy of mention has yet been made on the upland, but the fertility of the soil is indicated by the rank growth of wild vegetation.

At Lesser Slave Lake the Hudson's Bay Company cultivate successfully grain and vegetables, and some of the natives raise small quantities of potatoes. At Sturgeon Lake and at Bear Lake, north-west of the Peace River Landing, potatoes

are also successfully grown by the natives.

It is but right to state that according to those who have resided for a number of years in the Peace River country frosts, either in spring or summer, are very

unusual.

In the latitude of Dunvegan the sun is above the horizon nearly $17\frac{1}{2}$ hours on the 22nd of June, and its greatest angular distance below the horizon on that date is only 10° . There is no actual night, the twilight being sufficiently strong to enable one to see objects distinctly at a short distance. The amount of sunlight in summer compensates to a great extent for the loss of heat due to the obliquity of the sun's rays, as vegetation was observed to be very rapid and luxuriant.

Climate.

Regarding climate, I may state my own experience.

On the 28th September, 1882, and following days, snow fell at the North Pembina River to a depth of 8 inches; on the 9th October, however, it had all disappeared, and we had fine weather until the 1st of November, when it became cold and raw, with flurries of snow; by the end of January the depth of snow reached

its maximum, 2½ feet, in the vicinity of Lesser Slave Lake.

Very cold weather was experienced in the beginning of December, and again for the first two weeks in January, 1883, when the lowest temperature recorded at Dunvegan was 57°. With the above exception, the winter compared favorably with that of Ontario; we had no weather of such severity as to prevent work on the line; and, living in canvas tents, did not find it uncomfortable, except in the cold periods above named. On the 20th March the snow began to disappear; on the 15th April the ice broke up on Smoky and Peace Rivers, and the open prairie was clear of snow, while in the wooded parts it did not entirely disappear until the 10th of May. On the 24th April I saw a number of flowers on the north bank of Peace River, and from that date onward vegetation advanced rapidly.

The spring and summer we've cool and cloudy, with light showers of rain and occasional frosts (the latter, I was informed, were quite unusual). The weather continued open and pleasant until the 1st November, 1883, when snow began to fall. It is proper to state that traders and others who have resided for a number of years in the Peace River country as well as in other parts of the North-West, consider the climate of the former much the most favorable, and state that summer frosts in that

region rarely occur.

Outlet for Products.

From the above description it will be seen that the fertile portion of the Peace River country is almost completely separated from Edmonton and the North-West

by an extensive tract of broken and inferior country, and until the means of access are improved, either by opening up a road in the direction previously indicated, or the construction of a railway, it cannot become settled to any extent. Agricultural implements and the different articles required to commence operations must be brought in from Edmonton, but the agricultural products of Peace River can never be profitably exported in that direction. There are, however, the Peace and Mackenzie River districts, which, could be directly supplied. These consume a considerable quantity of flour, &c., which is now being brought from Edmonton and British Columbia, and which, owing to the difficulties of transport, sells at a high price; but the demand being limited could be supplied by a few well cultivated farms. For an outlet to the great European markets one must look to Hudson's Bay.

On the Peace River, from the Rocky Mountains to Lake Athabasca, there is only one impediment to navigation, viz., at the falls, 120 miles west of Lake Athabasca, which, as before stated, could be passed by means of locks, thus giving continuous navigation to the east end of that lake; and thence to Fort Churchill on Hudson's Bay, a distance of about 400 miles, the country is reported generally level and swampy, and it is probable would admit of the construction of a railway.

Should the Hudson's Bay route prove practicable, it is evident that the country drained by the magnificent Peace River is perhaps more favorably situated in regard to it than any other part of the North West.

Fish, Game, &c.

Lesser Slave Lake abounds in whitefish upon which the natives residing there almost exclusively exist; salmon trout and pike are also found in smaller numbers.

In the spring and fall large numbers of ducks, geese, cranes and swans are found at this lake. Whitefish Lake, lying to the north about a day's journey, also abounds in fish and wild fowl, and in Smoky River brook-trout and gold-eyes are found; but very few fish are obtained in the Peace River. Near the mountains all the streams are said to abound in brook-trout.

Moose are found in considerable numbers in the vicinity of Smoky and Peace Rivers, and at Dunvegan dried moose meat forms one of the staple articles of diet. Bears are also very plentiful in the vicinity of these rivers; three varieties being found, the black, cinnamon and grizzly. In the wooded parts the Canadian partridge or ruffed grouse are found in large numbers, and prairie chickens in the open parts.

The following fur-bearing animals are still plentiful, viz: beaver, musk-rat, otter,

fisher, mink, fox and lynx.

In conclusion I may state that, owing to the great expense attending the transport of supplies to the Peace River country, I do not consider that it would be advisable to prosecute surveys extensively there at present.

I have the honor to be, Sir, Your obedient servant,

WM. T. THOMPSON, D.T.S.

E. DEVILLE, Esq., Surveyor-General, Ottawa.

No. 21.

REPORT OF C. F. MILES, D.L.S.

Walkerton, Ont., 27th December, 1889.

SIR,—I have the honor, in accordance with my instructions, to submit the following report on my last season's surveys in the southern part of the District of Alberta.

On receipt of my instructions, dated 7th May, I proceeded to Toronto and thence by Canadian Pacific Railway connections to Winnipeg, where I stopped over to purchase supplies, thence going on to Calgary, arriving there on the morning of the 27th of May, where I received more detailed instructions from the Inspector of Surveys, and on the 1st day of June commenced re-tracing and re-mounding the 5th Initial Meridian from the 7th Base southward. While on this work I also made a traverse of part of Bow River, where it crosses Sections 6 and 7 in Township 22, Range 30, west 4th Initial Meridian.

No great difference in measurement was found until I reached the Porcupine Hills. While re-tracing the 5th Meridian in these hills, I was compelled, on 27th June, to abandon my carts, and to move my outfit on the horses' backs. Not having any

pack saddles it was rather severe on the horses.

The meridian line crosses some of the highest peaks in the hills; however, it also intersects valleys well adapted for settlement. The growth of herbage was luxuriant, compared with that on the prairie, added to which the hills are well watered by numerous springs and spring creeks. Plenty of timber, both poplar and spruce, are met with, well adapted for domestic purposes.

On measuring the east boundary of Section 1, Township 11, I found the quarter section mound 8 chains and 37 links too far south, and the whole surplus on the last two quarter sections on the 3rd Correction Line 23 chains and 28 links. Communicating this fact to the Inspector of Surveys, he recommended re-measuring the 24 miles between the 3rd and 4th Bases, which was done, but no material difference

was made in the surplus.

After completing re-tracing and re-mounding of the 5th Meridian I returned to Townships 12, Ranges 29 and 30, west 4th Initial Meridian, to examine and correct the subdivision of the same. Having measured the outlines of these townships, I connected the quarter posts on the outlines a-half mile south of the 4th Base by a straight line, thus determining the depth of quarter sections adjoining the 4th Base. I also ran the interior cords and made these lines govern the width of intervening sections. Scarcely any topography was taken while making the measurements for the necessary corrections in these two townships, being under the impression that it was not necessary.

After completing the correction of these townships I proceeded with my outfit via Fort McLeod to Township 8, Range 22, west 4th Initial Meridian, where I surveyed the north-west quarter of Section 13, this being a part of the "Blood" Indian Reserve. Some of the corners had been previously established by Mr. Nelson, Surveyor to the Indian Department. This quarter-section is traversed by the Belly River, and

includes the old trading post formerly known as "Whoop-Up."

From here I proceeded to the west side of the "Piegan" Indian Reserve, on which I located and surveyed Sections 7 and 18 in Township 7, Range 28, west 4th Initial Meridian. The corners of the sections I found had also been previously established by D. L. S. Nelson, and iron bars planted. These two sections are somewhat cut up by the Old Man's River, the bed of which is here of considerable width, although the river itself, owing to the very dry season, was but of small dimensions.

On Section 7 one settler is located, whose crops, notwithstanding the drought, looked promising. On Section 18 fields of oats were seen in the valley on the north side of the river. Several other fields were also seen on the bench north of the river. The latter, I was informed, were under cultivation by some of the Piegan Indians.

After completing the survey of these two sections I proceeded to Township 6, Range 1, west 5th Initial Meridian, for the purpose of surveying a road from the Old Man's River south-westerly to the sawmill situated near the south-west corner of Section 18 in this township. In travelling to this point I passed through what appeared a fine country, well adapted for the growth of cereals and for stock-raising purposes. The land is generally rolling and undulating up to within a couple of miles from the mill, where the country becomes more hilly and the hills more abrupt. Rock is exposed in many places.

Mill Creek, which furnishes the power for running the mill, is a fine stream, and although not containing much water at the time I made the survey, has the appearance of carrying a large body of water at certain seasons. It is also well stocked with

trout.

The road I surveyed is partly on the south-east quarter of Section 19 and partly on Section 18; that part of the road on the south half of Section 18 has been in use for some time, and has been graded in several places, whereas that part on the north half of Section 18 and on part of the south-east quarter of Section 19 is a deviation from the former travelled road. I was informed that good timber is within easy reach of the mill, and can be floated down without much difficulty.

From here I proceeded to the south half of Township 5, Range 30, west of 4th Initial Meridian. This part of the township consists mostly of rolling prairie, covered in many places with a dense growth of willow scrub and second growth poplar. There are also good hay meadows in the southern half of this township, and I would

consider it well adapted for settlement.

After completing the subdivision of the south half of this township, I proceeded to the north-east corner of Township 4, Range 28. I experienced some difficulty in finding any posts or mounds, as owing to the large herds of cattle ranging here all the mounds were found to be obliterated and posts knocked down. The grass is of a luxuriant growth, which added to the difficulty of finding section corners. However, after half a day's search, we finally found the township corner, and then proceeded south, re-tracing the outline of Township 4. Not finding any material difference in rechaining the first three sections, I renewed the old pits and planted iron posts at section corners. Section 13 was found to be 87 chains and 55 links in length. I made the necessary correction, and continued establishing corners according to corrected measurement. The land adjacent to this line is undulating, with a good black loamy subsoil, also well watered with numerous ponds, and on the east and west by Belly and Kootenai Rivers.

I made the necessary change in the line, tying in the Police Reserve at "Big Bend" of the Belly River, with the north-east corner of Section 13, Township 3, Range 28.

I completed retracing and marking the section and quarter section corners of Townships 2, 3 and 4 on September 7th, and shortly afterwards moved my camp

to the Waterton River, or, as it is better known, the Kootenai River.

I arrived on the banks of this river on the 9th of September in a dense fog, so dense that an object a chain distant could only be dimly discerned, and, as we were travelling across country, I had to make constant reference to the compass. The following night a heavy snow storm set in, continuing all the next day, which was succeeded by a heavy frost and flurries of snow. However, all the snow had disappeared by the 14th, and we enjoyed about a month's fine weather after that. Heavy winds prevailed during our stay at this point, and I was informed by old settlers that they were peculiar to that locality.

Quite a rush of speculators took place on account of the recent discoveries of petroleum on a creek, since named Oil Creek, about two miles south of the South Kootenai Pass. I visited this creek, which is somewhat difficult of access, and saw several

small pools both on the north and south sides of the creek, each containing probably a gallon of oil and water mixed. I send a sample of the oil for your inspection. The ground for a short distance around these pools appears saturated with the oil, which is also seen oozing out from the banks of the creek in various places. It is situated quite close to an old Indian hunters' trail, and is said to have been known by the Indians, and the oil used by them as a medicine, for many years.

Quite a number of mining locations have been surveyed in the valley of this creek, and since the visit of an expert, who had been sent up by some eastern Oil Company to test the discovery, nearly 20,000 acres have been staked out and surveyed, comprising parts of Townships 1 and 2, Ranges 29 and 30, west of the 4th

Initial Meridian.

I tied in the claims surveyed on Oil Creek with my subdivision survey by

triangulation.

The formation contiguous to the oil springs consists of a gray and red sandstone, generally capped on the peaks by an overflow of limestone. There is a considerable dip to the strata, often almost vertical, from which a conclusion may be drawn that in boring for the oil at any distance from the Mountains, the wells may have to be sunk to a very great depth before striking the oil-bearing rock.

The Kootenai Lakes, as they are more commonly called, and as they are said to be named by the "Stony" Indians, comprise three fine sheets of water. The lower two are about one and a-half miles and two and a-half miles in extreme length, respectively; the upper one is said to be about fifteen miles in length, of which only about three

and a-half miles are north of the International Boundary.

Salmon trout are very plentiful in the upper lake, and speckled or rather mountain trout in the Kootenai River, which is the outlet for these lakes. The growth of grass is very luxuriant in this the most extreme south westerly corner of the District of Alberta, although the flats in many places are very stony.

Two old settlers were met with in Townships 1 and 2, Range 29. One of them, Mr. John George Brown, in Township 2, was resident at the time of my survey; the

other one, Mr. H. A. Kanouse, had retired to Fort McLeod.

A small seam of anthracite coal has been discovered in the southerly portion of Township 1, Range 29, on or near Canon Creek, the specimens of which looked very promising; but as so many more extensive seams have been recently discovered in close proximity to the Canadian Pacific Railway, it will probably be some time before this will be developed.

I completed my survey in this district on October 15, and moved out the same day to "Big Bend" on the Belly River. I forded the river here the following day and travelied across country to Township 2, Range 25, W. 4th I. M., passing through

Cardstone, the centre of the Mormon settlement.

Whatever may be the tenets held by these people it must be acknowledged that they are industrious. It is two years since I passed through here before, and they, the first comers, were then under canvas. After the lapse of two years the progress they have made is very noticeable. Many good substantial houses have been erected, generally in fields or gardens well fenced; and what would strike a casual visitor perhaps most is the number of hay, grain and straw stacks surrounding almost every house.

In Township 2, Range 25, I retraced and repitted the east boundaries of Sections

31, 30, 19, 18, 7 and 6.

From here I proceeded to examine subdivision contract No. 13, comprising part of Township 3, Range 24; Township 4, Range 21; and Townships 3 and 4, Range 20, west of the 4th Initial Meridian, situated on the Milk River ridge.

Owing to the great scarcity of prairie grass during the past summer, a considerable quantity had been cut on this ridge, the greater part of which had been for the

requirements of Lethbridge and vicinity.

I returned to Fort McLeod, by way of "Whoop Up," passing through a very dry and bare-looking country. Owing to scarcity of feed my horses strayed while camping near Fort McLeod, and I was therefore delayed several days.

In compliance with instructions received from the Inspector of Surveys, I returned in November to the Porcupine Hills, and chained outlines of Townships 9 and 10, in Ranges 29 and 30. I measured the three first deflection angles on the 3rd Base, east of the 5th Meridian. They were 0.°106, 0.°11 and 0.°101. My measurements on the east limit of Townships 9 and 10, Range 29, varied at most 21 links from theoretical distance, and the depth of the last quarter section on the 3rd Correction Line differed in length 9 links from distance on sketch supplied me. Of the last quarter section in Range 30, the original measurement is given as 40 chains; according to my measurement Section 25, Township 10, is 87.46 chains, and Section 36 measured 82.74 chains, thus making a surplus in Sections 25 and 36 alone.

I enclose a list of my measurements.

I traced the 3rd Base across Range 28 without finding any errors. The several nights that I camped on the Base Line, the weather was not favorable for observing. I, however, succeeded in catching "Polaris" one morning soon after elongation, which led me to conclude that the azimuth of the 3rd Base at Section 2, Township 9, Range 29 was very nearly correct. I was more successful in observing on Range Lines 29 and 30, about six miles north of the 3rd Base, the azimuth of both these lines being within 0.005 of a true meridian.

Owing to the season being far advanced, and the weather in the hills con-

Owing to the season being far advanced, and the weather in the hills continuing very threatening, with daily snow flurries, I became somewhat alarmed lest I should be snowed in with my carts and outfit. I therefore did not proceed any further in determining the exact point of deviation, but concluded that the error

must be somewhere on the 3rd Base in either Range 29 or 30.

We left the hills on 22nd November, and returned to the vicinity of Fort McLeod, where, after laying in oats and other supplies, I started my party for Calgary on the 25th, travelling myself by stage. They arrived at Calgary on 30th November, and I paid them off the same day.

All of which is respectfully submitted.

I have the honor to be, Sir, Your obedient servant,

> C. F. MILES, Dominion Land Surveyor.

E. DEVILLE, Esq., Surveyor General, Ottawa, Ont.

No. 22.

EXAMINATION PAPERS OF THE BOARD OF EXAMINERS FOR DOMINION LAND SURVEYORS.

Examination for Admission as Articled Pupil.

PENMANSHIP AND ORTHOGRAPHY.	No of
Time, 3 Hours.	No. of Marks.
Penmanship. Orthography.	50 200
Write an Article on "Canada our Home,"	
ARITHMETIC AND LOGARITHMS.	
Time, 3 Hours.	No. of Marks.
 Find the value of ·25° multiplied by 17.68°. A starts driving from Winnipeg to Calgary, 900 miles, at the rate of 25 miles a day; B starts from Fort Ellice, 220 miles west of Winnipeg, two days after A also for Calgary, at the rate of 20 miles a day; while C starts from Calgary for Winnipeg five days after A starts and at the rate of 30 miles per day. At what distance from Winnipeg will A and B, A and C, and B and C be together? 	15 20
 3. The tabular logarithmic tangent is 8.9274067; what is the angle? 4. Extract the square root of .0372854. 5. Raise to the 5th power the cube root of 178.324. 	12 8 15
6. What is the numerical value of	15
(Cos 40° 21′ 30″) (Cos 32° 13′ 10″) tan 52° 18′ 25″ 7. The assessed value of a town is \$3,482,650. The total taxes to be raised	15
are \$53,460, of which the school tax exceeds the combined municipal and special tax by 25 per cent., the municipal exceeding the special tax by 25 per cent also. What is the rate of taxation for the special tax?	13

ALGEBRA,	77 0
Time, 3 Hours.	No of Marks.
1. Find the H. C. F. of x^2+5x+6 , $x^2+7x+10$ and $x^2+12x+20$	10
2. Find the L. C. M. of $x-1$, x^2+x+1 , and x^3-1 .	10
3. A man has three nephews. His age is 50 and the joint ages of the	10
nephews are 42. How long will it be before the joint ages of the	
nephews will be equal to the age of the uncle?	
[PART II]	77

4. Solve for x	25
10x + .91y + 1.20z = -7.93 .91x + 9.08y - 6.07z = +9.63	
1.20x - 6.07y + 42.62z = -22.18. 5. The sum of two digits composing a number is 8, and if 36 be added to	15
the number the digits will be inverted. Find the number. 6. The sum of the squares of two consecutive numbers is 481. Find the	15
numbers. 7. For a journey of 108 miles 6 hours less would have sufficed had one gone 3 miles an hour faster. How many miles an hour did one go?	15
GEOMETRY.	
Time, 3 Hours.	No. of Marks.
1. Triangles upon the same base and between the same parallels are equal to one another.	16
2. To make a triangle of which the sides shall be equal to three given straight lines, but any two whatever of these must be greater than the third.	16
3. If a straight line be divided into two equal and also into two unequal parts, the squares on the two unequal parts are together double of the square on half the line and of the square on the line between the points of section.	16
4. For squaring a number mentally we have the following rule $(a-x)(a+x)+x^2=a^2$	20
in which a is the given number, and x that number which added or subtracted from the given number makes a multiple of ten. Prove the rule geometrically.	
5. If two straight lines cut one another within a circle, the rectangle contained by the segments of one of them is equal to the rectangle contained by the segments of the other.	16
6. In any triangle the squares on the two sides are together double of the squares on half the base and on the straight line joining its bisection	16
with the opposite angle. 7. To trisect a given straight line. 8. To describe an isoscless triangle having each of the angles at the base	20 20
double of the third angle. 9. The square inscribed in a circle is equal to half the square described about the same circle.	20
 10. Inscribe a circle in a rhombus. 11. About a given circle to describe a triangle equiangular to a given triangle. 	20 20
PLANE TRIGONOMETRY.	1
Time, 3 Hours.	No. of Marks.
1. Prove that the sum of the square of the sine of an angle and the square of the cosine of that angle is unity.	10
2. Give the algebraic signs of Sine, Cosine, Tangent, Cotangent, Secant, and Cosecant in the four quadrants.	10
3. Prove $\cos (x + y) = \cos x \cos y - \sin x \sin y$. 4. Given $A = 50^{\circ} 38' 52''$, $B = 60^{\circ} 07' 25''$, and $a = 412.67$; find b and c.	15 20
5. Given $a = 10$, $b = 12$, $c = 14$, find the angle of A . 6. Given $a = 6.24$, $b = 2.35$, and $C = 110°32'$; find A , B and c .	20 25
78 [PART II]	

SPHERICAL TRIGONOMETRY.	
Time, 3 Hours.	No. of Marks.
1. Prove that in a spherical triangle the sines of the sides are proportional to the sines of the opposite angles.	10
2. Show that $\cos a = \cos b \cos c + \sin b \sin c \cos A$.	15
3. In a right angled triangle the hypothenuse $c=110^{\circ} 46' 20''$, $A=80^{\circ} 10'$	25
30"; solve the triangle.	0,5
4. Given $A = 120^{\circ}$, $B = 130^{\circ}$, $C = 80^{\circ}$; find c .	25
5. Show that $\operatorname{Sin} \frac{1}{2} A = \sqrt{\frac{\operatorname{Sin} (s-b) \operatorname{Sin} (s-c)}{\operatorname{Sin} b \operatorname{Sin} c}}$	25
MENSURATION OF SUPERFICIES.	
	No. of
Time, 3 Hours.	Marks.
1 A circular race course, 30 ft, wide is half a mile long measured on the	20

course?
2. In the quadrilateral A B C D, B is a right angle, A B=4·62 chains, B C=5·84 chains, C D = 7·41 chains, and D A = 8·79 chains. What is the area in acres, roods and perches.
3. The area of the annulus between two concentric circles is 10 sq. ft., and the diameters are to each other as 1 to π. What is the length of the diameters, π being the ratio of the circumference of any circle to its diameter?
4. How many six acre lots can be laid out in a square mile after deducting

line within the track 3 ft. from the inside of the course. How many acres will be required in the square field just sufficient to include the

therefrom a boulevard 100 ft. wide running around the square, and of the remaining land ten per cent. to be appropriated for roads.

5. The area included between a circle and the inscribed hexagon is 61.74 sq. inches. What is the radius of the circle?

FULL EXAMINATION FOR ADMISSION AS SURVEYOR.

PLANE GEOMETRY AND MENSURATION.	
Time, 3 Hours.	No. of Marks.
1. What changes can be made in the shape and dimensions of a parallelogram without altering its area? Illustrate.	8
2. A straight line drawn at right angles to the extremity of a diameter falls without the circle.	10
3. A rope attached to the top of a vertical pole standing upon a plain just reaches the ground. Desiring to find the height of the pole, I took hold of the end of the rope, keeping it perfectly taut, and pulled it out a feet from the foot of the pole, and found then the end of the rope to be b feet from the ground. How high was the pole?	16
4. If two circles intersect, the common chord produced will bisect the common tangent.	12
5. The diagonal of a rectangular lot is 83.82 chains, and the sides are in the ratio of 5 to 16; what is the area of the lot?	16
[PART II]	79

6. If in example 5 the diagonal be divided in the ratio of the sides, and a line drawn from one of the opposite angles through the point of sec-	22
tion to the opposite side, what is the area of the triangle so cut off? 7. The sides of a triangular field are 12.68 chains, 15.42 chains, and 9.90 chains respectively. What is the area?	16
SOLID GEOMETRY.	No. of
Time, 3 Hours.	Marks.
1. If a solid angle be contained by three plane angles any two of these angles are greater than the third.	15
2. The plane angles which contain any solid angle are together less than four right angles.	15
3. What must be the radius of a sphere of iron so that the weight of the sphere equals that of a cube of ice, side 2 feet. Specific gravity of ice	30
being '92, that of iron 7.20, and a cubic foot of water weighing 62½ lbs. 4. The surface of a sphere has 100 sq. inches. What are the dimensions of a right cone of equal volume with the sphere if the height of cone	30
equals twice diameter of base? 5. In a cylindrical tub 2 ft. in diameter there are 9 inches of water. A cylinder of iron 1 ft. long and 1 ft. in diameter is laid in the tub. What	30
is the height of the water then? 6. What is the weight of a township bar 5 ft. long, cylindrical, 1\sqrt{s} inches in diameter, hollow, iron \sqrt{s} inch thick, squared at one end, the other end being pointed conically 4 inches; a cubic inch of iron weighing a quarter of a pound.	30
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SPHERICAL TRIGONOMETRY.	
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 Deduce cos ½ (A + B) = tan ½ C / tan ½ (a+b) Give Napier's rules for the solution of right-angled spherical triangles. When C is the right angle, c = 140° and a = 20°, solve the triangle. C=36° 45′ 28″, a=84° 14′ 29″ b=44° 13′ 45″; find the remaining parts. Find the angles of an equilateral spherical triangle, each of whose sides is 60°. Given A = 132° 16′, B = 139° 44′, b = 127° 30′; find a. Given A, B and C; discuss the remaining parts. DIVIDING AND LAYING OFF OF LAND. Time, 3 Hours. A B C D is a quadrilateral, right angle at B; A B = 7.84 chains, B C = 8.26 chains, C D = 10.18 chains, and D A = 12.72 chains. It is required to divide it into two equal parts by a straight line drawn from C to A D. Where is the point of section on A D? In a triangular field A B C, A B = 10 chains, B C = 8 chains, and C A 	22 10 20 25 21 22 30 No. of Marks.

3	In section 3 Tp. 9 R. 5 W. of 2nd I. M., there is a large spring on the southern boundary of the section, and 20 chains from the S.E. corner. A man wishes to divide the section equally among his four sons by straight lines radiating from the spring. What are the lengths of the dividing lines?	20
4	In a quadrilateral ABCD, AD is parallel to BC and at right angles to AB. AB=4.62 chains, BC=7.46 chains, and AD=5.30 chains. It is required to divide the parcel into two equal parts having equal frontage on AB by a straight line. What is the length of the dividing line?	20
5	Through the south-east part of Sec. 3 Tp. 9 R. 5 W., runs a 4° railroad curve, convex towards the S.W. angle of the section, and intersecting the southern boundary 9 chains and thewestern boundary 12 chains from the S. W. angle of the section. It is required to divide the triangular part cut off into halves by a straight line parallel to the western boundary. What is the length of the dividing-line, and where will it intersect the southern boundary?	. 30
	MEASUREMENT OF AREAS.	
	Time, 3 Hours.	No. of Marks.
1.	Station. Bearings. Distances.	45
	1 S. 69° 15′ E. 7.06 chains.	
	2 N. 37° 15′ E. 5.93 " N. 39° 30′ W. 6.00 "	
	4 S. 57° 45′ W. 4.65 "	
	5 S. 30° 00′ W. 4·98 "	
2.	Find the area by latitudes and departures, first "balancing" the survey. In the above example, if the chain was half a link too long, what would be the true area?	10
3.	Express the conditions necessary for a closed survey by two equations. (a.) And from them show what missing data in a survey can be	30
ı	supplied. (b.) How does the supplying of missing data in a survey affect "balancing" the survey?	
4.	In what cases of missing data in a survey may ambiguity result in the determination of the missing data? Show how.	15
	DESCRIPTIONS.	
	Time, 3 Hours.	No. of
		Marks.
1.	A man sells that part of the south-east quarter Sec. 3 Tp. 9 R. 5, lying south of the C. P. Railway. The centre line of the railway enters the section on a tangent 10·14 chains from the south-east angle of the section, and leaves the \$\frac{1}{4}\$ Sec. at a point distant 16·80 chains from the south-west angle of \$\frac{1}{4}\$ Sec. The right of way extends 50 links on each side of centre line. Make a description for conveyance of part sold.	25
2.	The registered plan of the town of Derby shows town lot number 2 in block A to be a rectangle 75 links by 2.00 chains and bearings N. 77° 42′ E. and N. 12° 18′ W. respectively. The owner sells 33 feet frontage from the south-west corner of the lot, the division line to be parallel to the westerly limit of the lot. Make a description for conveyance of part sold.	25
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[PART II]

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tude of the place?

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- 3. Let in question 1 the centre line continue from the western boundary of the ¼ Sec. on a 1° curve, deflection northward, to the western boundary of the section. Make a description for the right of way through said section.
- 4. A reserve is to be granted. It is to adjoin the 5th I. M. to the west; its southern boundary to extend along the 15th Base Line for 25 miles, and its eastern boundary along the Initial Meridian 40 miles north; the western boundary to be a meridian, and the northern one to conform with the system of Dominion Lands Survey. Make a description of the reserve, giving the townships included in part or in whole.

PRACTICAL ASTRONOMY. No. of Time, 3 Hours. Marks. 1. Explain fully the difference between apparent, mean and sidereal time. 12 2. Give one or more methods for determining the value of a division of 13 the striding level. What are the characteristics of a good level? 3. In taking a single meridian altitude of the sun, what error or errors is 15 the observation subject to, and what corrections must be applied to the observation for obtaining the latitude of the place? 4. What is meant by the "equation of time?" Explain why its value is 15 greatest in November. 5. In latitude 53° 43′, longitude 110° W., the Government telegraph line 25 runs N. 80° W. At what time of the day on August 19th, 1880, will the shadow of a telegraph pole fall on the wire? 6. The observed altitude of Polaris at lower transit was 52° 16′ 20″ on 20 May 30th, 1880, in approximate longitude 114° W. What is the lati-

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PRACTICAL ASTRONOMY.	
Time, 3 Hours.	No. of Marks.
7. On March 31st, 1880, at 53° 43′ N. latitude and 110° W. longitude, a sidereal chronometer is fast 0h. 47m. 42s. (no rate), and at 4 o'clock mean local time in the afternoon of that day it is slow on a watch 1h. 39m. 37s. For what meridian does the watch show the correct mean time?	20
8. At the same place and date as in the last question, in the forenoon the observed altitude of the sun was 25° 26′, a watch shewing 9 o'clock. What is the error of the watch?	20
9. In question 8 what is the azimuth of the sun an hour after the observa-	20
10. What is the azimuth of the sun at sunset at the place and date of question 7?	20
11. At Kamloops latitude 51° 40′ 39″ longtitude 120° 19′ 35″, when is sidereal time exactly 6 hours ahead of mean time in the year 1880?	20

MANUAL OF SURVEY AND DOMINION LANDS ACT.	
Time, 3 Hours.	No. of Marks.
1. Describe the	25
(a) first system of survey.	
(b) second system of survey.	
(c) actual system of survey. 2. What area and townships are covered by	OF.
(a) the first system.	25
(b) the second system.	
3. Describe the different kinds and sizes of posts and mounds, how and	16
where they are placed.	
4. How would you mark the following posts:	17
(a) at the N.E. corner of Sec. 17 Tp. 48 R. 3, West of the P.M.	
(b) at the easterly corner between Tps. 9 and 10 R. 5, East of the P.M.	
(c) at the southern corner between Secs. 5 and 6 Tp. 19 R. 8, W. of	
4th I. M. (on a correction line).	
(d) at the N.E. corner of Sec. 9 Tp. 19 A. R. 7, W. of 2nd I. M. (on	
the south side of the road allowance dividing two systems of	
survey).	
(e) at the N.E. corner of Sec. 36 Tp. 42 R. 13, West of the 3rd I. M. (on a correction line).	
5. Describe fully the process of subdividing a township. What notes are	17
to be taken, what traverses made, and the limit of closing error?	1

MANUAL OF SURVEY AND DOMINION LANDS ACT.	
Time, 3 Hours.	No. of Marks.
6. How would you re-establish the posts—question 4—(a) (b) (c) and (d)?	25
7. How are legal subdivisions to be surveyed? How are they num-	20
bered? How are they surveyed in fractional sections?	00
8. What instruments are to be used in subdivision surveys? How and	20
with what is the linear measurement determined on a survey? What precautions are to be used in making the measurements? How are	
obstacles to be passed, such as swamps or rivers or inaccessible hills?	
9. Describe fully what the field book and plan of subdivision of a town-	20
ship for final return should contain? What conventional colors are	
used for topography?	
10. How would you summon a person to give evidence before you regard-	15
ing the position of a corner or boundary? How would you proceed if he failed to appear before you at the time specified?	
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PLANE GEOMETRY.	37 0
Time, 3 Hours.	No. of Marks.
1. All the angles of a rectilinear figure, together with four right angles, are equal to twice as many right angles as the figure has sides.	13
2. Each angle of a regular polygon is 156°. What is the number of its sides?	12
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3. If a straight line be divided into two equal, and also into two unequal parts, the squares on the two unequal parts are together double of the square of half the line and the square of the line between the points of section.	13
4. Through three given points only one circle can be drawn.	12
5. On the same straight line, and on the same side of it, there cannot be two similar segments of circles, not coinciding with one another.	13
6. How many equal circles can be placed within a circle having a diameter three times as great as theirs, in such manner that no two of the circles shall cut one another? If each of the smaller circles be 1 sq. ft. in area, what is the area of the part of the large circle not occupied by the smaller ones?	12
7. Divide a given straight line into parts which shall have the same ratio to one another that the parts of a given divided straight line have to one another.	´13
8. O is a fixed point from which any straight line is drawn meeting a fixed straight line at P; in O P a point Q is taken such that the rectangle OP, OQ is constant; show that the locus of Q is the circumference of a circle.	12

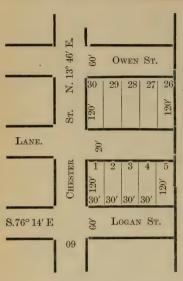
SOLID GEOMETRY.	
Time, 3 Hours.	No.Fof Marks.
1. If three straight lines meet all at one point, and a straight line stand at right angles to each of them at that point, the three straight lines shall be in one and the same plane.	25
2. Planes to which the same straight line is perpendicular are parallel to one another.	25
3. If two points be taken on the surface of a sphere, the great circle joining them is shorter than any small circle of the sphere connecting the same two points.	25
4. Find the surface and the volume of a right cylinder, the diameter of the base being 10 inches and height 2 feet; also the surface and height of a right cone having the same base and volume.	25
5. What is the content in imperial gallons of a frustrum of a square pyramid, the sides of its ends being 52 and 28, and its depth 36 inches, an imperial gallon containing 277.274 cubic inches?	25
6. A conical glass whose depth is 6 inches, and the diameter of its mouth 5 inches, is filled with water. A sphere of iron 4 inches in diameter is placed in it. How much water will run over?	25

SPHERICAL TRIGONOMETRY.	
Time, 3 Hours.	No. of Marks.
1. Deduce the fundamental formula.	25
$\cos a = \cos b \cos c + \sin b \sin c \cos A.$	
2. Find the relations connecting the angles and sides of the polar triangle with those of the primitive triangle, and show how these relations may be used in transforming spherical formulæ.	25
PART II]	

 3. In a right angled spherical triangle, A=140°, a=150; solve the triangle. 4. In a spherical triangle, 	25 25
 a=27° 10′, b=35° 16′, c=12° 18′; solve the triangle. 5. Two ports are in the same latitude 54°, and their difference of longitude is 51°. Find the saving in distance in sailing from one to the other along a great circle, instead of sailing due east or west along the 	25
circle of latitude. 6. Show in what cases the solution of a spherical triangle is ambiguous.	25

DIVISION OF LAND,	No. of
Time, 3 Hours.	Marks.
1. Required to lay off $7\frac{1}{2}$ acres in the form of a triangle, one of whose sides is 25 chains, and the lengths of the other two are in the ratio of 2 to 3. Find the lengths of these sides.	18
2. Divide a triangular field by a straight line into two parts of equal area, in such manner that they may require the same amount of fencing, the sides of the triangle being 10, 15 and 17 chains.	20
3. Two sides of a field meet at a point A at an angle of 75°. It is required to part off from the field a triangle, with vertex at A, of area 2½ acres, by the shortest possible line. Find the length of this shortest line and the points where it cuts the sides.	19
4. A rectangular lot has 25 chains frontage, and is 60 chains deep. The land on the front is valued at \$300 an acre and that at the rear \$150. The value is assumed to decrease uniformly from front to rear. It is required to divide the land into three parts of equal value by means of straight lines meeting at a spring which is at the intersection of the diagonals of the rectangle.	25
5. Show how to divide a quadrilateral into parts having given areas by straight lines parallel to one side.	18

DESCRIPTIONS. Time, 3 Hours.	No. of Marks.
1. Mr. A. owns the south-east quarter of Section 3, Township 6, Range 7, west of 2nd Initial Meridian. He sells the eastern half thereof to Mr. B. Make a description of the part sold.	20
2. The centre line of the Mackenzie Basin Railway enters the eastern side of Section 18, Township 32, Range 1 west of the 5th Initial Meridian on a tangent running N. 65° W., and at a distance of 14°82 chs. from the southeastern angle of said section. The lands appropriated for the railway extend 33 ft. on each side of the centre line. Make a description of the right of way through said section.	20



3. Mr. A. owns lots numbers one, two and three. On lots numbers one and two he has erected a rectangular brick block, which is supposed to have a frontage of fifty feet on Logan street and adjoins Chester street the full depth of the lot. Mr. A. sells the brick block to Mr. B. Make the necessary description for a conveyance.

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4. Using the above diagram:—Mr. B. buys from Mr. A. twenty feet frontage of Lot No. 1, the frontage extending from Chester St. along Logan St., and the parcel bought to have a uniform width to the rear thereof. Make a description for a deed of the parcel bought.

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5. A ranching company leases from the Government 100,000 acres. The land is to comprise Townships 16 and to extend westward from the 5th Initial Meridian; the western limit of said land to be a meridian. Make the description of the land for the lease.

MEASUREMENT OF AREAS.

Time, 3 Hours.

No. of Mark.s

 Supply the omissions and calculate the are a of a tract of land from the following field notes:— 50

Station.	Course.	Distance.
1	$ m N~55^{\circ}~W$	25.50 chs.
2	N 23½° W	33.50 "
3	$N 62\overline{1}^{\circ} W$	18.30 "
4	-	61.00 "
5	S 47½° E	44.00 "
6	S 83½° E	53.00 "
7	$S 26\frac{1}{2}^{\circ} E$	
8	$N 28\frac{1}{2}^{\circ} W$	50.00 "

2. Explain how to "balance" a survey when the notes are complete.

3. Show how to supply omissions in field notes such as the above, distinguishing all the different cases.

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PRACTICAL ASTRONOMY,	
Time, 3 Hours.	No. of Marks,
1. Explain fully the terms: right ascension, declination, celestial latitude and longitude, terrestrial latitude and longitude. From what points	12
and in what directions are they measured? 2. Define—hour angle, sidereal time, apparent and mean solar time, and explain how one is converted into another.	14
3. The sidereal time at the meridian of Greenwich on May 21st, 1880, of a certain occurrence being 7h. 23m. 51·3s., find the corresponding mean solar time. Also find the sidereal and mean solar times at the same instant in longitude 103° West.	18
4. Describe the observation of a star at its greatest elongation for azimuth. How would the result be affected by imperfect levelling of the instrument, and by error of collimation?	18
5. In latitude 53° 32' what is the zenith distance of a star, declination 53° 10', when crossing the prime vertical, and what is its hour angle?	20
6. On June 10th, 1880, in longitude 105° 13′ W., the observed altitude of Polaris at upper transit was 53° 28′ 17″. Find the latitude of the place of observation.	18
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PRACTICAL ASTRONOMY.	77 0
Time, 3 Hours.	No. of Marks.
7. On the 17th May, 1880, in longitude 110° 15′ W., the observed meridian altitude of the sun's upper limb was 68° 25′ 34″. What was the latitude?	25
8. On the 9th August, 1880, in longitude 105° W., the observed altitude of the sun's upper limb was found to be 20° 14′; latitude 48° 30′; approximate time of observation, 7 ^h a.m. Find the mean time of observation.	25
vation. 9. On July 20th, 1880, in latitude 50° N., and longitude 102° W., at 10 ^h 20 ^m sidereal time, the magnetic azimuth of the sun was S. 60° W. What was the magnetic declination?	25
10. Find from the Almanac the right ascension and declination of the moon at 15 ^h 30 ^m 15 ^s , Greenwich mean time, on 17th Sept., 1880.	25
	
PLANE GEOMETRY.	No. of
. Time, 3 Hours.	Marks.
 Describe a circle about a given triangle. In any triangle if squares be described on the three sides and the external adjacent angles joined then the three triangles thus formed and lying between the three squares are each equal to the original triangle. 	11 11
triangle. 3. Similar triangles are to one another in the duplicate ratio of the homologous sides.	11
4. Prove the proposition corresponding to the algebraic statement	11
$(a+b)^2 + (a-b)^2 = 2 a^2 + 2b^2.$	87

[PART II]

 5. ABC is a triangle inscribed in a circle and AD, AE are drawn parallel to tangents at B and C to meet the base at D and E. Show that the ratio of BD to CE is the duplicate of the ratio of AB and AC. 6. The surface of a circle and hexagon is in each 15 sq. feet. What is the 	15
difference between the circumference and perimeter? 7. To find a mean proportional between two straight lines.	15
 (a) If of three straight lines in continued proportion the mean and the difference of the extremes are given, find the lines. 8. Two circles of 10 and 15 feet diameter respectively, intersect one another. Their common chord is 8 feet. What is the area of the surface common to both? 	15
SOLID GEOMETRY.	
Time, 3 Hours.	No. of Marks.
1. If a solid angle be contained by three plane angles, any two of these angles are greater than the third.	16
2. The plane angles which contain any solid angle are together less than four right angles.	16
3. Any three straight lines which meet one another, not in the same point, are in one plane.	16
4. A tank in the form of a frustrum of a right cone is 10 ft. in diameter at the top and 12 ft. at the bottom and 18 ft. high. How many gallons of water will it contain? 1 gallon = 277.274 cub. inches.	26
5. In a hemi-spherical vessel 12 inches in diameter stands a right cone, base 8 inches, height 10 inches. How many gallons of water will it take to fill the vessel?	25
6. What is the difference in yards required for a bell (conical) tent 10 ft. high and covering the same number of square feet as an A tent 8 ft. by 10 ft. and the latter tent, it being 6 ft. high and having a 2 foot wall, and square ends?	25
7. The length and diameter of a cylinder are equal; the volume is equal to that of a sphere of radius a; what is the volume of the sphere circumscribing the cylinder?	26
SPHERICAL TRIGONOMETRY.	
Time, 3 Hours.	No. of Marks.
1. In any spherical triangle establish the following:— $\cos a = \cos b \cos c + \sin b \sin c \cos A$ $\cos B - \cos A = \frac{\sin (a - b)}{\sin c} (1 + \cos C).$	25
$\frac{\cos b - \cos A}{\sin c} = \frac{1 + \cos C}{\sin c}.$ 2. Deduce	25
$\frac{\cos\frac{1}{2}(A+B)}{\cos\frac{1}{2}(A-B)} = \frac{\tan\frac{1}{2}c}{\tan\frac{1}{2}(a+b)}.$	
3. Show that $\sin^{2}\frac{1}{2}A = \frac{\sin(s-b)\sin(s-c)}{\sin b\sin c}.$	25
4. In a spherical right triangle	25
$A=100^{\circ}$ and $a=112^{\circ}$; solve the triangle fully. 5. In a spherical triangle	25
$A = 95^{\circ} 38' \ 4'', C = 97^{\circ} 26' \ 29'', b = 64^{\circ} \ 23' \ 15''; \text{ find } B.$ 6. Given $A = 120^{\circ}, B = 130^{\circ}, C = 80^{\circ}; \text{ find } c.$ [PART II]	25

DIVIDING AND LAYING OFF OF LAND.	77. 0
Time, 3 Hours.	No. of Marks.
1. In a triangular piece of land ABC, the side $a=10c.78$, $b=8c.42$ and $c=12c.06$, the course of AB being due north; it is required to divide the triangle into two equal parts by a straight line starting on the side c at a distance of $5c.00$ from A. What is the azimuth and length of the dividing line?	25
2. The centre line of the C. P. R. enters on a course N. 70° W., the southern limit of Sec. 3, T. 13, R. V., at a point 16c·40 from the southwest angle of said section. It is required to divide that part of the section lying north of the railway into two equal parts by a line parallel to the above tangent. What is the length of the dividing line, the right of way extending 50 links on each side of the centre line?	25
3. If in the last question that part of the section south of the railway be divided into one acre lots by lines parallel to the west section line, what will be the frontage of such lots?	25
4. Divide the area contained within a circular race course one mile in circumference into three equal parts by parallel lines. Give the length of the dividing lines.	25

	MEASU	JREMENT OF AREAS.		No. of
	:	Time, 3 Hours.		Marks.
1.	Stations.	Bearings.	Distances.	30
1,	1	S. 69° 15′ E.	7e:06	
	$\hat{2}$	N. 37° 15′ E.	5.93	
	$\frac{2}{3}$	N. 39° 30′ W.	6.00	
	4	S. 57° 45′ W.	4.65	
	$\frac{4}{5}$	S. 30° 00′ W.	4.98	
C	ompute area, after balanc			
2. Show by equations how to solve for:			30	
(1) Where the bearing and length of one course are unknown.				
(2) Where the bearing of one course and length of another are unknown.				
(3) Where two bearings are unknown.				
(4	1) Where two lengths are	e unknown.		
3. If i	n a survey the angles are	e read by a transit-theod	olite and in closing	15
check, how would you balance the survey before computing the area				
by latitude and departure?			10	
4. If v	ve assume the temperatu	re correction to be half	a link per mile for	10
e	very 10° F, and the chair	n standard at $60^{\circ}~F$; ar	nd a parcel of land	
of	f 100 acres to be laid out	in August with the cha	in at 100° F, with-	
01	at allowing for expansion	, what is the error in ar	ea of the parcel?	15
	riangular piece of land n		14, 7c.62 and 9c.58	15
re	espectively. What is the	e area!		

DESCRIPTIONS No. of Time, 3 Hours, Marks. 1. The Saskatchewan Driving Park Association buys from Mr. A the south-20 west corner of Sec. 3, Tp. 13, R.V., for a one-mile circular race course. The land bought to be in the form of a square, with its sides one chain from the nearest point of the one-mile line. Make the necessary description for a deed. 2. Mr. A sells to Mr. B the northern half of the above section. Make the 20 necessary description for a deed. 3. In the town of Hope and District of Assiniboia, the lots are laid out 50 20 feet by 150 feet, the side streets running north and south, the others east and west. Mr. A sells to Mr. B twenty feet frontage off lot 4 extending from the south-west corner of the lot. The parcel bought to have a uniform width to the rear. Make the necessary description for a deed. 20 4. In giving distance in descriptions when are the words "more or less" properly applied? 5. Draw up the affidavit of a witness regarding the position of a town lot 20 corner, the post of the original survey having disappeared.

PRACTICAL ASTRONOMY.	No of
Time, 3 Hours.	No. of Marks
1. Define solar, mean and sidereal time. Show how to obtain a ready ap-	16
proximation of the difference between a mean and sidereal day. 2. Define parallax, right ascension and declination. In the Nautical Almanac are given the mean and apparent declinations of stars; explain each.	16
3. Explain the cause of the variation in the equation of time, and why the equation of time is greatest in November. A graphical solution may be given.	16
4. On August 19th, 1880, in latitude 53° 43′, longitude 110° W., an observation for azimuth was taken on Polaris at the computed time of eastern elongation. Afterwards it was found that the watch giving the time was slow 25 minutes. What was the resulting error in azimuth?	20
5. On May 20th, 1880, in approximate longitude 115° W., the observed meridian altitude of the sun's lower limb was 57° 10′ 30″. What is the latitude of the place?	16
6. In question 4 how does the line of collimation affect the observation, and how does the level of the axis?	16
7. On Sept. 25th, 1880, in latitude 51° 40′, longitude 112° 36′, the observed altitude of the sun was 34° 15′ when a watch showed 9h. 42m. 36s. What was the azimuth of the sun, and watch correction?	30
8. In question 7, what was the sidereal time of observation and for what meridian did the watch show the correct mean time?	10
9. At what time does the sun set on June 21st, 1880, in latitude 52° 38′, longitude 103° 30′?	20
10. In latitude 54° 42′ 9″ the observed meridian altitude of the sun was 32° 08′ 20″. What day of the year (1880) was it and what was the longitude of the place, approximately.	20
11. On May 10th, 1880, at what time A.M. will the shadow of a vertical picket be due east and west, in latitude 50° 00′ longitude 96° 30′ W.?	20

[PART II]

Examination for Dominion Topographical Surveyors.

ALGEBRA.

ADGEDIA.	
Maximum No. of Marks 50.	No. of Marks.
Time, 3 Hours.	
1. Solve the equations: $a. \begin{cases} \sqrt{\frac{x}{y}} + \sqrt{\frac{y}{x}} = \frac{5}{2} \\ \sqrt{\frac{x^2}{y}} + \frac{y^2}{x} = \frac{9\sqrt{2}}{2} \end{cases}$	5
$ \sqrt{\frac{x^2}{y} + \frac{y^2}{x}} = \frac{9\sqrt{2}}{2} \\ (x+y+z=3a) $	5
$b. \begin{cases} x+y+z=3a \\ yz+zx+xy=3a^2 \\ xyz=a^3 \end{cases}$	
	5
2. Two vessels are sailing on courses at right angles to one another towards the intersection of the courses. Their distances from this intersection being at one time 4 miles and 3 miles, and their respective velocities 6 miles and 8 miles per hour. When are they nearest to each other, and what is the shortest distance between them?	3
3. If p be greater than unity, then for all the real values of x the expression $\frac{x^2 - 2x + p^2}{x^2 + 2x + p^2}$ lies between $\frac{p-1}{p+1}$ and $\frac{p+1}{p-1}$	5
4. If m a is greater, equal to, or less than n c , according as m b is greater, equal to, or less than n d , whatever values are given to m and n , then $\frac{a}{b} = \frac{c}{d}$	5
v = u	5
 5. Find the sum of the cubes of the first n natural numbers. 6. Write down the first five terms of the expansion of (5-4x)-1/2 	5 5
7. Prove that $\left(1+\frac{1}{n}\right)^n = e^x$ in the limit when n is made very large.	7
8. Show that.	
$\log_{a} y = \frac{y - 1 - \frac{1}{3} (y - 1)^{2} + \frac{1}{3} (y - 1)^{3} - \&c.}{a - 1 - \frac{1}{2} (a - 1)^{2} + \frac{1}{3} (a - 1)^{3} - \&c.}$	6
9. If $y = x - \frac{x^2}{2} + \frac{n^4}{4}$ — &c., find x in a series of ascending	10
powers of y. 10. A point taken at random within a circle is joined with two fixed points on the circumference. What is the chance that the centre of the circle is within the triangle thus formed?	7
11. Three balls marked, 1, 2, 3 are placed in a bag. Five successive drawings are made, the ball being each time replaced. What is the chance that the sum of the numbers thus drawn is even?	10

PLANE TRIGONOMETRY.

Maximum No. of Marks, 50.

Time, 3 Hours.

1. Assuming the formula for sine and cosine of A + B and A - B in terms of sines and cosines of A and B to hold true for angles less than 90°, prove that they hold universally.

2. Prove

$$\sin (a-b) + \sin (b-c) + \sin (c-a) + 4 \sin \frac{a-b}{2} \sin \frac{b-c}{2} \sin \frac{c-a}{2} = 0$$

 $\tan^{-1}\frac{1}{3} + \tan^{-1}\frac{1}{5} + \tan^{-1}\frac{1}{7} + \tan^{-1}\frac{1}{8} = \frac{\pi}{4}$

3. Find x from the equations

Sec $\alpha \sec x + \tan \alpha \tan x = \sec \beta$ $4 \sin x \sin (x-a) = 2 \cos a - 1$ $\tan x \tan 2x + \cot x = 2$

 $\cos n x + \cos (n-2) x = \cos x$ giving the general values of x.

4. Prove the formula

$$\sin a = a - \frac{a^3}{\sqrt{3}} + \frac{a^5}{\sqrt{5}} - \frac{a^7}{\sqrt{7}} + \dots$$
5. Expand $\tan^{-1}x$ in terms of x .

6. Show how the formula

$$\sin \theta = \theta \left(1 - \frac{\theta^2}{\pi^2}\right) \left(1 - \frac{\theta^2}{2^2 \pi^2}\right) \left(1 - \frac{\theta^2}{3^2 \pi^2}\right) \dots$$

and the corresponding formula for $\cos \theta$ may be used for the calculation of tables of logarithms of trigonometrical functions.

7. Given $\sin x = n \sin (x+a)$, expand x in powers of n.

8. If in a triangle the angle C differs from 180° by a small angle θ , shew

 $c=a+b-\frac{a\ b\ \theta^{2}}{2\ (a\ +\ b)}$ sin ² 1" very nearly, θ being given in seconds.

9. Find the sum of the series

$$\sin \alpha + \sin (\alpha + \beta) + \sin (\alpha + 2\beta) + \dots$$
 to *n* terms.

SPHERICAL TRIGONOMETRY.

Maximum No. of Marks, 50.

Time, 3 Hours.

1. Prove the formula

 $\cos a = \cos b \cos c + \sin b \sin c \cos A$

and deduce from it the corresponding formula of plane trigonometry.

2. Prove

92

$$\frac{\cos\frac{1}{2}(A+B)}{\cos\frac{1}{2}(a+b)} = \frac{\sin\frac{1}{2}C}{\cos\frac{1}{2}c}$$

3. In what cases of the solution of spherical triangles is there ambiguity?

4. Prove that the area of a spherical triangle is equal to the square of the radius of the sphere multiplied by the spherical excess.

5. In a spherical triangle whose sides are quadrants, a point within it is distant α , β , γ , from the angles.

Prove that $\cos^2 \alpha + \cos^2 \beta + \cos^2 \gamma = 1$.

PART II

No. of Marks.

5

4

4 4

4

4

8

8 6

8

8

8

No. of Marks.

9

9

9

9

6. The locus of the vertices of all right-angled spherical triangles upon	9
the same hypothenuse (c) is expressed by the equation:	
$\cot \frac{21}{2} \stackrel{?}{c} = \cot \frac{2}{p} + \sin \frac{2}{p}$, where p is the distance of the right angle	
from the middle point of the hypothenuse, and P the angle this	
distance makes with the hypothenuse.	
7. Prove that the locus in the last question becomes a circle when the	0
and the locus in the last question pecomes a circle when the	9
radius of the sphere is made infinitely great compared with the sides	
of the triangle.	
8. Find what the following formulae become when the radius of the	6
sphere is made infinitely great compared with the sides of the	
triangle:	
$\cos a \sin b = \sin a \cos b \cos C + \sin c \cos A$	
$\tan \frac{1}{2} A = \sqrt{\frac{\sin (s - b) \sin (s - c)}{\sin s \sin (s - a)}}$	
$\sqrt{\sin s \sin (s-a)}$	

sphere is made infinitely great compared with the sides of the triangle:	
$\cos a \sin b = \sin a \cos b \cos C + \sin c \cos A$	
$\tan \frac{1}{2} A = \sqrt{\frac{\sin (s-b) \sin (s-c)}{\sin s \sin (s-a)}}$	
ANALYTICAL GEOMETRY.	
Maximum No. of Marks, 80.	No. of Marks.
Time, 3 Hours.	
1. Prove that the general equation of the first degree represents a straight line.	8
2. What loci are represented by the equations	
$(Ax + By + \hat{C}) + k (Dx + Ey + F) = 0. \ (Ax + By + C) (Dx + Ey + F) = 0.$	4
(Ax + By + C) (Dx + Ey + F) = 0. $(Ax + By + C)^2 - (Dx + Ey + F)^2$	4
$\frac{(Ax + By + C)^2 - (Dx + Ey + F)^2}{A^2 + B^2} = O \text{ (axes rectangular)}.$	4
3 Deduce the equation of the straight line in the form	
$\frac{x-h}{c} = \frac{y-k}{s} = l \text{ (rectangular axes)}.$	8
4. If the position of any point in a plane be represented by r and r_1 , its distances from two fixed points, find the equations to rectangular axes of the loci represented by the following—	
$r+r_1=c$	4
$egin{array}{c} r-r_{\scriptscriptstyle m I} == c \ rr_{\scriptscriptstyle m I} == h^2 \end{array}$	4
$\frac{r}{r_1} = c$	4
$r^2 + r_1^2 = c^2$ 2h being the distance between the fixed points and c any constant, and the point midway between the two fixed points being origin, and the straight line joining them the axis of x .	4
5. Find the equation to a circle, centre at point a , b , radius r . Rectangu-	8
lar axes. 6. Find the condition that the straight line $lx+my=1$ is a tangent to	8
 x²+y²=r². Show that any transformation of coördinates may be expressed by the substitution for x and y respectively of Ax+By+C and Dx+Ey+F, and prove thence that the degree of an equation is neither raised nor depressed by transformation of coördinates. 	8
8. Find the equation of the chord of contact of the two tangents drawn from a point x , y , to the circle $x^2+y^2=r^2$.	8
9. Prove that the polar of a point with reference to a circle passes through	8
the pole of every straight line passing through that point.	0.0

[PART II]

10. Find the equation of the locus of the point which divides the ordinates of the circle $x^2+y^2=r^2$ in the constant ratio $\frac{b}{a}$	8
11. Find the equation to the diameter of the ellipse $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$ $\frac{x}{x_1} = \frac{y}{y_1}$ conjugate to the diameter.	8
12. Find the locus of the intersection of tangents to the ellipse $\frac{x^2}{x^2} + \frac{y^2}{x^2} = 1$.	8
at right angles to one another. 13. Find the locus of the feet of the perpendiculars from the foci on any tangent to $\frac{x^2}{a^2} + \frac{y^2}{b^2} = 1$.	, 8
ANALYTICAL GEOMETRY—(Second Paper.)	
Maximum No. of Marks 50.	No. of
Time, 3 Hours.	Marks.
1. If the position of any point on a given ellipse be defined by the inclination (Φ) of the normal at the point to the major axis, express the	15
rectangular coördinates of the point in terms of Φ . 2. Express in terms of Φ the length of the normal included between the	12
 point and major and minor axes respectively. 3. Write down the formulæ expressing in terms of Φ, the radius of curvature of the meridian of a spheroid and that of the normal section at right angles to the meridian, and express in terms of these two the radius of curvature of a section making any angle with the meridian. 	12
4. Define the term "geodetic line" as applied to a surface, and show that the geodetic line joining two points is the shortest distance between any two intermediate points which lie on the line.	12
5. At what point of an ellipse whose axes are 12 and 8 must a normal be drawn to make an angle of 45° with the axes.	12
6. The eccentric angle of a point on an ellipse is 45°, and the angle which the normal at the same point makes with the axis of x is 60°. What is the eccentricity of the ellipse?	12
LIMITS AND DIFFERENTIAL CALCULUS.	No. of
Maximum No. of Marks 50.	Marks.
Time, 3 Hours.	
1. Two variable quantities may have zero for their limits, and yet not be ultimately equal. Illustrate by the sine and versed sine of a small angle.	7
2. Prove that the volume of a right circular cone is equal to the area of the base multiplied by \(\frac{1}{3} \) of the height.	7
 Find the area of an ellipse. Find the volume of an oblate spheroid. Which increases faster: a number or its logarithm, an arc or its sine? Find the differential coefficient of a x², x being independent variable, and a constant. 	8 8 7 7

and a constant.

alignment.

7. Develop by Taylor's theorem: $tan^{-1}x$, and $log(1+x)$.	10
8. Differentiate $\log 4 \sqrt{\frac{1+x}{1-x}} + \frac{1}{2} \tan^{-1}x$.	7
9. Show that the differential coefficient with respect to x of	7
10. If in a spherical triangle C and c remain constant, the corresponding small variations ∂a and ∂b of the sides a and b are connected by the equation: $\partial b \cos A + \partial a \cos B = O$.	7

equation. $v cos A + v u cos B = v$.	
GEODETIC SURVEYING.	77 0
Maximum No. of Marks 150.	No. of
Time, 3 Hours.	Marks.
1. A trigonometrical station is situated on the top of a hill, and from it is visible another station on top of a hill of equal height 80 miles distant. The line of sight is at its nearest point 200 feet above the surface of the level plain on which the hills stand. What is the height of the station above the plain?	30
2. In the measurement of the base lines, how are changes of temperature of the rods allowed for or compensated? State some of the methods by which accurate contact of the rods is obtained. How is the effect of flexure of the rods avoided?	30
3. If a base line consists of two parts making with one another an angle very nearly 180°, deduce a series to express the distance between the two ends of the base in terms of the parts.	30
4. If the direct angle between two objects not on the horizontal plane of the observer be measured with a sextant of repeating circle, deduce the horizontal angle, in the form of a series. Find the correction to the horizontal angle as measured with a theodolite for inclination of the graduated plate.	30
5. Show that the calculation of the relative positions and azimuths of two stations from the measured distance between them may be made by spherical trigonometry, using a sphere whose radius is the radius of curvature of the great circle perpendicular to the meridian at one of the points; and that the resulting difference of latitude must be multiplied by \(\frac{N}{R} \), the difference of longitude needs no correction, and the deduced azimuth of one point from the other needs a correction almost infinitesimal.	30
6. Show that the azimuth of a vertical flag staff, as seen from a distant station, is different according as the point sighted at is the top or the bottom of the flag staff. Define geodetic lines and curves of	30

a point of the attraction of a hill, estimated at one two hundred thousandth of the earth's attraction, the azimuth of the hill from the station being a. What effect will this attraction have upon the direction of a line run from the point in azimuth β .

30

7. What is the effect in seconds on the observed latitude and longitude of

PROJECTIONS.	
Maximum No. of Marks 100.	No. of
	Marks.
Time, 3 Hours.	
1. Distinguish between a true projection and development. Describe the orthographic, stereographic, gnomonic and globular projections.	30
2. Describe Mercator's projection; its use and defects.	15
3. In Flamsteed's projection, what are the coördinates of a point whose latitude is <i>l</i> and difference of longitude from middle meridian <i>n</i> ? Explain fully in what respect Bonne's projection differs from the simple conic projection.	30
4. In the polyconic projection how is the azimuth affected by the projection? Demonstrate your assertion.	35
5. In the development of the cone tangent at 49° parallel, 97° longitude being the middle meridian, what is the offset at longitude 102° for that parallel from its tangent, tangent being at the middle meridian. Log N=6.8443422. N being in yards. Scale 100000.	35

conic projection.	,
4. In the polyconic projection how is the azimuth affected by the projec-	35
tion? Demonstrate your assertion.	00
5. In the development of the cone tangent at 49° parallel, 97° longitude	35
being the middle meridian, what is the offset at longitude 102° for	
that parallel from its tangent, tangent being at the middle meridian.	
Log N = 6.8443422. N being in yards.	
Scale $\frac{1}{500000}$.	
ASTRONOMY—(First Paper).	
	No. of
Maximum No. of Marks 125.	
	Marks.
Time, 3 Hours.	
1. The sun in rising shone on a mountain peak 4 minutes before he shone	25
on the plane of the horizon. How high was the peak? Latitude 42°, sun's declination 20° N.	
2. In what latitude will two stars cross the prime vertical at the same	25
time, their declinations being δ and δ' and difference of right ascen-	20
sions P?	
3. The length of the year in mean solar days being 365.24222, show that	25
the arrangement of leap years in the Gregorian calendar entails an	
error of about one day in 4,000 years, and that in a calendar where 31	
leap years are allowed in 128 years, the error would amount to one	
day in 32,000 years.	
4. Deduce the formula for calculation of latitude by altitudes near the	25
meridian.	05
5. Deduce the formula—	25
$\tan Z = \frac{\cot \delta \sec \varphi \sin t}{1 - \cot \delta \tan \varphi \cos t}$ where	
z , δ , φ , t , are azimuth, declination, latitude, and hour angle respectively. 6. In an observation for time by an altitude, find the position of the star in	25
which a small error in the altitude has the least effect on the deduced	40
time. Find also in what position of a star a small error in the time	
has the least effect on the deduced azimuth.	
7. Deduce the correction necessary on account of the changing declination	25
of the sun, in the observation for time by equal altitudes before and	
after noon.	
8. Deduce a formula for determining the latitude from the observed differ-	25
ence of azimuth of two circumpolar stars at their greatest elongation.	

14--7**

ASTRONOMY—(Second Paper.)	
Maximum No. of Marks, 125.	No. of Marks.
Time, 3 Hours.	
I. Find the error in an observed azimuth resulting from inclination of the	20
axis and collimation error. 2. How can the inequality of the pivots of a transit instrument be de-	20
termined? How is it applied in the reduction of observations? 3. When the transit instrument is very nearly in the Meridian, find the effects of small errors in azimuth, collimation and inclination. How are the amounts of these small errors practically determined?	20
H. Given a portable transit instrument and a sidereal time piece, describe the method of adjusting the instrument in the meridian.	20
5. When the transit instrument is nearly in the prime vertical, deduce the effect of the small error of azimuth, and also of errors of collimation and level. How are these errors determined? How can the undetermined collimation error be cut out of the result?	20
3. How are the values of one division of the level and the micrometer of the zenith telescope determined?	20
7. Compare the advantages of the three methods of determining latitude:	20
 (a) By zenith telescope. (b) By meridian altitudes measured with a graduated arc. (c) By prime vertical transits. 	
3. In determination of longitude by electric telegraph, how are the effects cut out of the time of passage of electricity, armature time, personal equation of observers, and errors in the right ascensions of the stars used?	20
Explain the method of determining longitude by moon culminations.	20
LEAST SQUARES.	
Maximum No. of Marks, 80.	No. of Marks
Time, 3 Hours.	
telescope, we have from 20 determinations of the time of passage of a star through 10 turns of the micrometer, the sum of the squares of the residuals = 68.35. What is the probable error of one turn? Interpret fully in words what is meant by your resulting "probable error."	20
2. Show that the sum of squares of the residuals found by taking the arithmetic mean is a minimum.	20
Define mean square error. Given the observation equations, all of equal weight: $x = 1$	20
x = 1 $x + y = 3$ $x - y + z = 2$ $-x - y + z = 1$	
Form the normal equations: Given the telegraphic longitude results: Seattle West of Greenwich $8^{\rm h}$ $09^{\rm m}$ $19^{\rm s}.45 \pm .27^{\rm s}$. Kamloops East of Seattle $8^{\rm m}$ $01^{\rm s}.09 \pm .08^{\rm s}$.	20
Winnipeg East of Kamloops 1^{h} 32^{m} $47^{\text{s}}.34 \pm .12^{\text{s}}.$	9

What is the less it also of Wissian and also is it as a label of the same of	
What is the longitude of Winnipeg, and what is its probable error? 5. From the following differences of longitude, deduce the weighted mean	20
and its probable error.	40
Washington—Key West 19^{m} $01^{\text{s}}.42 \pm .^{\text{s}}044$.	
$19^{\mathrm{m}}\ 01^{\mathrm{s}}.37\ \pm\ .^{\mathrm{s}}037.$	
$19^{\mathrm{m}}~01^{\mathrm{s}}.38 \pm.^{\mathrm{s}}036.$	
6. In the longitude triangle, Brest, Greenwich, Paris, the observed values	20
were:	
Brest—Greenwich, 17 ^m 57 ^s .154 weight 10.	
Greenwich—Paris, 9 ^m 21 .120 " 7. Brest—Paris 27 ^m 18 190 " 9	,
Brest—Paris, 27 ^m 18 .190 " 9. What are the most probable values and the weight of each?	
What are the most probable varies and the weight of each :	1
SYSTEM OF SURVEY, MICROMETER AND TRACK SURVEYS.	
76 1 77 175 1 170	No. of
Maximum No. of Marks, 150.	Marks,
Time, 3 Hours.	
Time, o Hours.	
1. In the first table in the Manual of Surveys, the difference of two suc-	30
cessive logarithms of R sin. 1" is three times that of the corres-	
ponding logarithms of N sin. 1". Why is this?	
2. Find the width of the last range of the 5th Base, west of the 2nd Initial	30
Meridian, adjoining the Third Initial Meridian; assuming that the	
average elevation of the base line above the sea is 1,500 feet, and that	
the Initial Meridians are exactly 4° apart.	
3. Find the width of the north boundary of Tp. 28, R. 17, west of the	30
Second Initial Meridian, this township being surveyed under the	
third system of survey, while the adjoining range (16) was surveyed	
under the second system. Given longitude covered by one range of	
the 8th Base, second system, = 8' 29".698.	30
4. What is the distance of a point in latitude 51°, longitude 107°, from the eastern and northern boundaries of the section in which it lies,	50
and give the section, township and range.	
5. State fully the advantages and disadvantages for exploratory work of	30
the solar compass, prismatic compass, box sextant and a 4-inch transit	00
theodolite.	
6. In exploratory work in a mountainous country, where it is desired to	30
locate mountain ranges and the more prominent peaks, what	
observations would you make, so that a map could be made showing	
approximately the topography of the country?	
7. In an exploratory survey made with an angular instrument, and a	30
distance-measuring micrometer, how can latitude observations be used	
as a check, and under what conditions will these observations also	
afford a check of any value on difference of longitude?	
·	
THEORY AND USE OF INSTRUMENTS.	
	No. of
Maximum No. of Marks, 150.	Marks.
Time, 3 Hours.	
1. What are the principles of the Rochon micrometer and the Lugeol?	15
2. Give some methods of practically determining the magnifying power	15
of a telescope.	
QQ [DARTI T]	

3. Express the brightness and the intensity of the image in terms of the diameter of the object glass and the pupil of the eye. For what purposes are telescopes with large objective and low magnifying power used, and when are high powers used? 4. How is the perfection of the object glass tested? 5. How is the eccentricity of graduated circles eliminated? What are the advantages of three verniers over two? 6. What are the qualities of a good level, and how is it tested? 7. Explain the method of comparing mean solar and sidereal chronometers by coincident beats. What is the probable error of one comparison? 8. How are the index glass, horizon glass and telescope of a sextant adjusted? How is the index correction determined? 9. Explain the use of the collimating eye-piece, in the determination of the collimination error of the transit instrument, or the nadir point of a graduated vertical circle. How may it be used to determine the value of a division of the movable thread micrometer? 10. Describe the mercurial barometer. What corrections to its readings are necessary? 11. Give formulæ for converting Fahrenheit's scale to Centigrade and Reaumer. 12. Describe the instruments used for obtaining the hygrometrical conditions of the air. 13. Define area of low pressure—isobars and isotherms.		
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13. Define area of low pressure—isobars and isotherms.		15
14 TI - 1-41	13. Define area of low pressure—isobars and isotherms.	15
14. How is the amount of show or rainfall measured?	14. How is the amount of snow or rainfall measured?	15

MINERALOGY AND GEOLOGY.) N C
Maximum No. of Marks, 50.	No. of Marks.
Time, 3 Hours.	
1. Substance, a dark yellow powder. Sub. + Ht. (heat) in closed tube = O. Sub. + Ht. do in open tube = becomes red. Sub. + Ch. (charcoal) + R. fl. (reducing flame) = yellow incrustation. Sub. + Na. O C O ₂ + Ch. + R. fl. = malleable globule. Sub. gives a colorless bead with both fluxes.	7
Sub. + H Cl. = solution. Sol. + K O H O. = precipitate. What is the substance? 2. What are the more important of the iron ores, how are they distinguished from each other, and where do they severally occur in Canada?	20
3. How would you distinguish between scales of gold, mica, iron pyrites and copper pyrites? Give characteristics of each.	10
4. Give a general outline of the position of the azoic rocks in Canada.	10
5. What recognized geological periods are represented in Ontario—	10
between Ottawa and Windsor? Give them in their proper order. 6. How are limestones from different localities distinguished as to their geologic age? State some of the limestone formations occurring in Canada, and their position.	10

No. of

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10

No. of

Marks.

10

10

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10

TRIGONOMETRICAL LEVELLING.

Maximum No. of Marks, 50.

Time, 3 Hours.

Marks. 10

- 1. An observation is taken of the angle of elevation of a mountain peak at a known distance. Deduce a formula for the height of the peak above the observation station, taking account of the curvature of the earth and the refraction.
- 2. How is the co-efficient of terrestrial refraction determined? Explain by formulæ.
- 3. How are heights determined by the temperature of boiling water? What precautions are necessary?
- 4. In the use of the barometer for determining heights, what effect has the temperature? Why is it necessary to compare with the readings of a barometer at another place? How far away may the station of comparison be?
- 5. Why does the length of a pendulum beating seconds vary in different latitudes? What is the law of variation of a pendulum of constant length at different elevations?
- 6. A clock is running with no rate. If the temperature of the pendulum rod is raised 20 degrees, how much will the clock gain or lose in one day, given co-efficient of expansion of the rod = 0.000007, assuming that the only effect of heat is expansion of the pendulum rod?

MAGNETISM.

Maximum No. of Marks, 50.

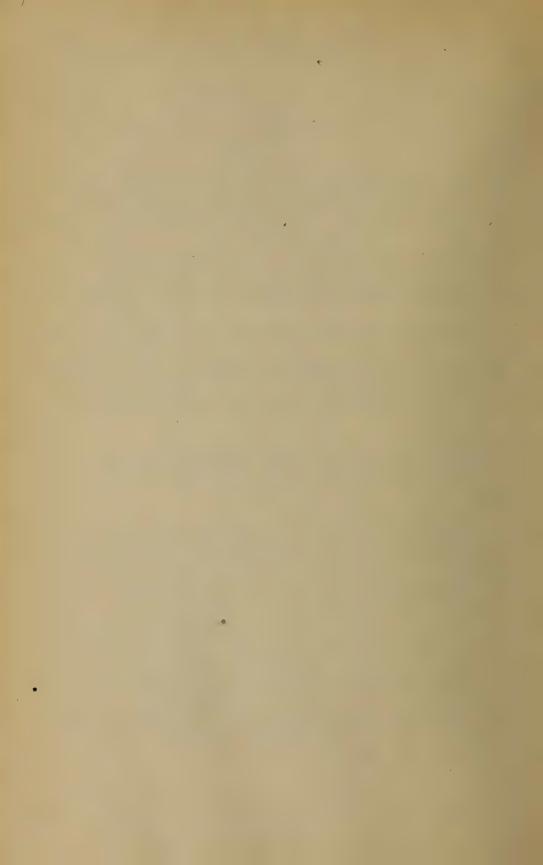
Time, 3 Hours.

1. How is the declination determined? What is the best time of day for observation? What is the approximate range of the diurnal variation? What effect has the secular variation at present upon the declination at Toronto—and what at Winnipeg?

- 2. How is the dip circle placed in the plane of the magnetic meridian? What is eliminated by reversal of dip circle—reversal of face of needle—and reversal of polarity?
- 3. Deduce a formula for determining the dip when the position of the magnetic meridian is unknown.
- 4. Explain the method of determining total force by means of a deflecting 10 magnet. Deduce formula.
- 5. If the total force be found by observation in a plane inclined to the magnetic meridian, deduce the total force in the magnetic meridian.
- 6. Describe the unifilar magnetometer, and the method of determining 10 therewith the horizontal force.
- 7. What is the magnetic pole? Why is the pole for total force not the same as that for declination or inclination?

PART III.

GEOLOGICAL SURVEY.



DEPARTMENT OF THE INTERIOR, GEOLOGICAL AND NATURAL HISTORY SURVEY AND MUSEUM BRANCH, OTTAWA, 31st December, 1889.

The Hon. Edgar Dewdney, M. P., Minister of the Interior, Ottawa.

SIR,—I have the honor to submit herewith the customary summary report of the work of the Geological and Natural History Survey corps during the past

calendar year.

From January to May was occupied in the preparation of the reports and maps that have since been published, forming a volume, in two parts, of about 1,400 pages, with numerous maps and illustrations. It contains thirteen separate reports, relating to the geology, the mineral resources and the natural history of various portions of the Dominion, from British Columbia and the North-West to Hudson's Bay and Nova Scotia.

The following publications have also been prepared and published during the

year:-

1. Vol. I., Part 2, Contributions to Canadian Palæontology.

2. Description of eight new species of fossils from the Cambro-silurian rocks of Manitoba, with six plates.

3. Contributions to the Micro-Palæontology of the Cambro-silurian rocks of

Canada: by Ulrich.

4. List of publications of the Geological and Natural History Survey of Canada from 1843 to 1889, with prices, and a brief description of the contents and the arrangement of the Museum and Library. 36 pp., R. 8vo.

There are also in preparation and in part ready for press:

1. Enumeration of Canadian Liverworts, with Notes.

2. Part V. of the Catalogue of Canadian Plants.

3. Catalogue of Canadian Birds, with their Habits and Range; also, list of species now represented in the Museum.

4. The Vertebrate fossil fauna of the Tertiary rocks of the North-West, with

plates: by Prof. E. Cope.

Early in April,16 parties were organized for field exploration, and were distributed as follows:—British Columbia, 3; North-West Territory, 2; Manitoba, 1; Ontario, 2; Quebec, 4; New Brunswick, 2; Nova Scotia, 2. A brief summary of these explorations is given in the following pages, as well as of the work that has been performed

in connection with the Museum, the Chemical Laboratory and the Library.

Up to the end of June my own time was fully and constantly occupied in attending to executive details, in answering enquiries verbally and by letter, and in work connected with editing the Annual Report and maps above referred to. On the 5th June I left Ottawa, for the purpose of making some observations at various points along the north shore of the lower St. Lawrence and in the Strait of Belle Ile. This was effected by securing a passage on board the Lighthouse Service steamer "Napoleon," but afforded opportunities for examination only at widely separated points, mostly at or in the vicinity of the lighthouses, along the great stretch of over 500 miles of coast line, extending from Point des Monts to Belle Ile. Some interesting facts were, however, ascertained, and I have acquired such a general knowledge of the character of the country as will enable me better to direct any future explorations that may be undertaken in this region with a view to ascertaining what its mineral resources are. In this connection it may be stated that Belle Ile itself, hitherto supposed to be composed of Laurentian gneiss, was found to consist largely, if not wholly, of various crystalline and sub-crystalline strata, like those of the

14-11***

Huronian mineral-bearing belts of the country north and west of Lakes Huron and Superior, and it is not improbable that considerable areas of these rocks may yet be found on the main land of Labrador; and, if so, they may be expected to be accompanied by deposits of valuable economic minerals, like those which characterize them in all the areas where they have yet been recognized and explored.

Hasty examinations were made, and specimens collected, at the following places: -Point des Monts, Egg Island, Pentecoste, Sheldrake, Seven Islands, Perroquette Island, Esquimaux Island, West, South-west and South points of Anticosti, Greenly Island, Point Amour, Chateau Bay and Belle Ile; and in Newfoundland at Cape Bauld and Quirpon Harbor, and at Capes Norman and Rich. The geological formations of the northern peninsula of Newfoundland have been described in the Geology of Canada, 1863, and are there all referred to one or other of the divisions—Levis. Lauzon and Sillery-of the Quebec group. From what I have seen this summer I am led to believe that the true order of succession of the strata has been misinterpreted, as it was in the Eastern Townships, and that much of the so-called Sillery and Lauzon is probably Huronian, but certainly not more recent than Lower Cambrian. Diorites and serpentines appear to be somewhat largely developed, and it seems quite likely that valuable deposits of asbestos may accompany them, as they do in the Eastern Townships of Quebec.

In this connection it may be interesting to quote some passages from a Memoir by A. S. Packard, Jr., read before the Boston Society of Natural History, October,

1865, and published in Vol. I of its Memoirs.

On page 216, under the heading "Huronian Group," he says: "A system of quartite and trap rocks which lie in a depression of the Laurentian rocks, about 125 miles long and probably 25 miles broad, stretching along the coast between Domino Harbor and Cape Webuc, I refer with some hesitancy to the Huronian series of Sir Wm. Logan, and consider as probably equivalent to the Quartzose division of the primitive slate formation of Newman and Keilhau. It agrees in part with the Domino gneiss of Mr. Lieber." The author then gives further interesting details of these strata, and in conclusion, page 218, says: "Should further search prove the existence, in connection with this quartzite, of beds of a true conglomerate, which we should look for in the interior, and of the presence of copper ore in connection with quartz veins near the trap rock, the identity of this formation with the Huronian rocks of Canada and of similar rocks in Sweden would seem satisfactory; and, if proven, will be interesting, not only to the geologist, but be of practical value in the search for ores on this coast,"

Mr. Packard also describes the remarkable columnar basaltic, trap rocks of Castle and Henley islands, in Chateau Bay, but I think erroneously assigns them to the Laurentian. From their attitude and appearance, they are, I think, more probably of Cambrian age, and equivalent to the Animikie of Thunder Bay, Lake Superior, Lake Nipigon, and the islands on the eastern shores of Hudson's Bay. No such rocks are, so far as I am aware, associated anywhere with the Laurentian system. If this proves to be correct, we may expect to find areas in East Main and Labrador of both the Archæan (Huronian) and the Cambrian (Animikie) metaliferous bearing zones of Lake Superior. The white quartzites of Marble Island, described by Dr. Bell * as Huronian, seem to correspond closely with those described by Mr. Packard at Dominio Harbor and Cape Webuc, while the columnar basalts of Castle and Henley Islands, Chateau Bay, are almost identical with those of Castle Peninsula, Richmond Gulf, † the Outer and Inner Barns of Lake Nipigon and the better known trap formation of Thunder Cape, Pie Island and McKay's Mountain, on Lake Superior.

At Sheldrake near the eastern end of the Seigniory of Mingan, and both east and west of the settlement, the coast is occupied by massive Labradorite rocks. On shore, where tidal action has polished these rocks, some fine examples of the beautiful opalescent anorthosite or labrador spar were observed, but specimens could not

Boston Society Natural History, Vol. I., 1866-69.
* Report Geological Survey of Canada, 1882-83-84. P. 35 D.D.,
† Bell—Geological Survey of Canada, Report 1877-78, p. 14c.

be easily obtained without appliances for blasting the rock. Inland for a considerable distance, where the vegetation has been burnt, the weathered surfaces of these rocks are perfectly white, making the country look as if there had been a heavy fall The extent of the area of these rocks in this region is entirely unknown. It is not impossible that it is continuous with that described by Prof. Hind, on the Moisie River and its branches, † and that this again extends continuously southeastward to Pentecoste River, where similar rocks occur as described by Richardson.* We should then have in this region the largest known area in Canada of these Norian rocks, and here doubtless it would not be difficult to determine their true relations to the red and grey granitoid orthoclase gneisses, which they have been supposed to unconformably overlie. There can, however, be little doubt that they are intrusive igneous rocks. On the 29th July I returned to Quebec, where Prof. C. Walcott, of the United States Geological Survey, met me by appointment, for the purpose of examining some of the typical sections around Quebec, on the correct interpretation of which so much has of late years been said and written by the geologists of the United States and Canada,

From the 14th to the 23rd August I was occapied, in company with Professor Walcott, in studying the relations of the Cambrian and Cambro-silurian formations on either side of the boundary between Vermont and Canada, with a view to uniformity of mapping by the respective surveys, and which, it is hoped, will now be secured.

After attending the meeting of the American Association for the Advancement of Science, in Toronto, from the 28th of August to the 2nd of September, a few days were spent—with a similar object in view to that above referred to, but in connection with the work now in progress along the Minnesota boundary, in company with Professor N. H. Winchell, of the United States Survey, and Dr. Lawson—studying the Huronian rocks around Sudbury and Algoma, and in an endeavor to show that the metaliferous Huronian strata of the Sudbury-Algoma region do not differ in any important particular from the similarly metaliferous schists, etc., which occur in the country between Lake Superior and Lake Winnipeg, including the Lake of the Woods, and Rainy Lake and River. In connection with this matter, and the importance of the work of tracing out and mapping these bands or belts of Huronian rocks, I may here quote what I wrote respecting it in 1873: * *

"Apart from the geological interest which attaches to the determination of the distribution of these rocks and their precise relations to the underlying Laurentian gneiss, the foregoing facts show that it is economically important that the extent of these bands should be defined; and that their mineral characters should be closely investigated is equally so, inasmuch as the gold, the copper and the iron of the region, as far as known, are associated with similar strata, and thus not only the best land, but likewise valuable mineral deposits, are to be looked for within the limits

which they occupy." * *

Since the above was written, nearly all the discoveries and developments of mines and minerals in the Huronian areas that have been indicated by the Survey have been made. That these facts are somewhat of the nature of cause and effect may, I think, reasonably be surmised; and whether they prove the truth or otherwise of the reiterated and apparently somewhat popular statements that of recent years the Survey has paid no attention to and takes no interest in the development of the mineral resources of the country may perhaps be left to the decision of the public and to the testimony of the sixteen volumes of reports, maps and other documents that have been published by the Survey since 1870.

In the enormous area which stretches from the Georgian Bay north-west to the Mackenzie River, and from the same point north-east to the Straits of Belle Ile and Cape Chudleigh, there are probably many such areas to be investigated and located; and a

[†] Explorations in the interior of the Labrador Peninsula, 1863. * Geological Survey of Canada, Report 66-69, p. 307. * Geological Survey Report of Progress, 1872-73, pp. 13-14.

map on which they are even roughly indicated will always be a valuable guide to

the mineral prospector.

The rest of the season, from the 9th of September to the 10th of October, the date of my return to Ottawa, was devoted to investigations and enquiries bearing on water supply in the North-West. The artesian wells of the James River valley and Devil's Lake, in Dakota, were visited, and also the boring now in progress at Deloraine. The quality of the water in the Dakota wells varies considerably. Most of the wells give a copious supply of excellent water. At Devil's Lake, however, though a copious supply was obtained at about 1,750 feet, the water, though good for stock, contains too much saline matter for ordinary domestic uses. There seems every probability, when a sufficient depth has been reached at Deloraine, of a good supply of artesian water being obtained. What the quality will be there is no evidence to show, but this is not now important, because even if as saline as is much of the surface and the artesian water of the Red River valley, it can, by a simple and inexpensive process of filtration, be made sufficiently pure for all domestic uses. This has recently been proved by experiments made at my suggestion on some of the most saline water of the Red River valley south of Winnipeg. It consists in simple filtration through from 50 to 60 feet of sandy gravel. Further experiments will perhaps suggest additions to the material used that would render the process still more perfect. Even as it is, the importance and value of this discovery to the whole of Manitoba and the North-West in such seasons as that of 1889 can scarcely be estimated.

The history of the discovery and development of natural gas in Ontario, to which I briefly referred in my last summary report, is interesting; but as it is somewhat of a personal character, I shall not now refer to it. The results attained during the past year are stated under the head of mineral statistics. They are highly satisfactory; but it would be well to bear in mind that the supply is not inexhaustible, and that wells that are now sending out their millions of cubic feet a day will gradually decline and become extinct. The greater the number of wells bored in a district the sooner will this inevitable event occur. Unlike water, neither gas, nor oil, nor coal, are constantly replenished, and must therefore sooner or later be exhausted. I called attention to this in my summary report for 1887, pages 24-25; and on page 30 of my summary report for 1888, in commenting on Mr. Coste's report on investigations I had directed him to make the spring of that year. I said: "There seems no reason why further trials, especially in that part of Ontario between Lake St. Clair on the south-west and Lake Simcoe on the north-east, should not prove more successful and yield as abundant a supply of gas or petroleum as do some of the Ohio wells." Since that expression of opinion, all the large gas wells

now referred to have been bored.

Dr. G. M. Dawson was, during the past season, again occupied in continuing the geological exploration of the southern part of the province of British Columbia. In consequence of the recent important mineral discoveries in the West Kootanie district, it was considered desirable that he should visit that district in the first instance, and should afterwards give as much time as possible to the completion of the more systematic work on which he had previously been engaged in the Kamloops region. Dr. Dawson, who was assisted by Mr. J. McEvoy, B. Ap. Sc., and by Mr. P. Edgar, furnishes the following summary account of the explorations carried out:—

"About a month, in the earlier part of the summer, was devoted to the examination of the more important localities in the West Kootanie district, which have lately been proved to afford valuable ores. While I was occupied in this work, accompanied by Mr. Edgar, Mr. McEvoy was independently engaged in examining a stretch of country between the North Thompson and Bonaparte Rivers, along the northern edge of the geological map-sheet now in course of completion. Work during the remainder of the season was practically confined to the area of the sheet just

referred to.

"It should be explained that, in comformity with the suggestion made in last year's Summary Report, the area covered by the original reconnaissance map of the Southern Interior portion of British Columbia, was divided into four equal parts, each forming a square of eighty miles side, and including a superficies of 6,400 square miles. The scale was at the same time increased from that of eight miles to that of four miles to the inch, and a preliminary compilation on that scale was made by Mr. McEvoy before field work commenced. The sheet to which the field work of last summer related, extends in longitude from the vicinity of the North Thompson to that of Lillooet (long. 120° 10′ to 122°), in latitude from 50° 10′ to 51° 20′. The exploratory work required for this sheet may now be considered as completed, with the exception of a belt of mountainous country to the west of the Fraser between Lillooet and Lytton. The enlargement of the scale of the map will enable greater justice to be done to the somewhat complicated geological and topographical features of the country.

"The Kootanie district, to the south of the line of the Canadian Pacific Railway, is naturally separated by the high, rugged, axial portions of the Selkirk and Purcell ranges, into eastern and western sub-districts. The first of these may be reached by ascending the Columbia from Golden, the second from Revelstoke, by way of the Columbia River and Arrow Lakes. Much prospecting has been going on in both East and West Kootanie for the past two or three years, and a large number of promising discoveries—chiefly of silver-bearing ores—have been made. The West Kootanie sub-district was that visited by me last summer, and in it no previous observations by officers of the Survey had been made, with the exception of a traverse of

the Columbia and Arrow Lakes by Mr. Bowman in 1884.

"Attention was first prominently drawn to the mineral wealth of the West Kootanie region when the discovery of rich ore by the Hall Brothers on a mountain which has since been known as Toad Mountain became known in 1887. Many prospectors soon flocked to the vicinity and a large number of claims have since been taken up, not only on and near Toad Mountain, but also at Hot Springs or Ainsworth, on the west side of Kootanie Lake, at Hendryx on the opposite side, and at many outlying localities. At Nelson and Ainsworth town sites have been laid out, and the first steps toward the establishment of permanent mining centres have been taken.

"Speaking generally of the district, I may say that the result of my examination has been to convince me that the importance of the mineral discoveries made has not been exaggerated, while their number and the area over which they are distributed is such as to guarantee a large and continuous output of good ore so soon as adequate means are provided for the transport of the product to market. As a number of details respecting the various deposits, (chiefly obtained through the kindness of Messrs. G. B. Wright and G. M. Sproat,) have already been given in my report on 'The Mineral Wealth of British Columbia,' recently printed, it will not be necessary in the present summary to speak of the individual claims and deposits visited by me. These particulars I hope to embody in a more comprehensive report shortly to be published. It may be noted, however, that in nearly every instance the result of my personal examination has been to verify the accuracy of the statements made in the publication just alluded to.

"The majority of the ores met with are to be classed as silver ores, and in the vicinity of Hot Springs and Hendryx these are for the most part argentiferous galenas, which, in a number of instances near Hot Springs, are decomposed to a considerable depth, forming so-called 'carbonate-ores.' These possess a special value owing to the ease with which they are worked and their importance in the process of smelting the unaltered galenas. The aggregate quantity of such 'carbonate ores' to be found in the deposits already proved must be great, but all will no doubt pass in depth

into sulphide ores.

"At Hot Springs or Ainsworth a truly remarkable number of metalliferous veins has already been brought to light within a very limited area, and additional discoveries are still being made from time to time even within this

PART III

area. Near the lake-shore, the country-rock is a coarse mica-schist which is overlain further back by green and grey schists, and these in turn are followed by limestones and black argillaceous schists, a mass of granite bounding the whole at a distance of two to three miles inland. In evident relation to this change in the country-rock is the circumstance that the ores improve almost uniformly in respect to content of silver in crossing the series of veins in a westward direction from the lake and rising higher above the lake-level. Some of the deposits associated with the limestones hold more or less native silver in a filiform condition, and very high assays are frequently obtained from these. It is not yet possible to quote assays of the ores of this vicinity made from specimens collected by myself, but it is safe to say that from several of the claims, considerable quantities of ore can already be obtained by ordinary hand picking which yield from 50 to over 100 ounces of silver to the ton, in addition to a high percentage of lead.

"At Hendryx, the only considerable developments made are those of the New Haven Mining and Smelting Company. The principal feature at this place is a lode of very great size, consisting largely of galena, but classing in respect to silver as a low-grade ore. So soon as efficient means are provided for handling and smelting this ore and shipping the product, a very large output may be counted on.

The Toad Mountain ores differ from the foregoing in containing a large amount of copper and less gelena. The Hall Brothers' property, known as the 'Silver King Mine,' from the name of the claim on which most work has been done, is so far the leading one here, and has turned out a considerable quantity of ore which has approached or surpassed \$300 to the ton in total value as sold at the smelter. Other claims are, however, being opened out, some of which present a very favourable appearance.

"At the east end of Toad Mountain, a wide belt of rusty schistose rocks, containing more or less quartz and much iron pyrites, has been discovered. The superficial portions of this belt have been completely oxidised and afford free-milling gold. This property has been acquired by an English company, known as the Cottonwood Company, and a Huntingdon mill has been erected for the purpose of treating, in the first place, the decomposed surface material, of which there is, in the aggregate, a great quantity in sight. The results of trials so far carried out have not been made public. Should it prove, however, that the deeper pyritous portion of the deposit contains sufficient gold to pay for concentration, roasting and chlorination, the quantity of the ore appears to be almost unlimited. Another gold-bearing deposit, in the form of a well-defined vein traversing a granitic rock, is situated on Eagle Creek, toward the west end of Toad Mountain. Work is being carried on here and a stamp mill is in process of erection.

"Beyond the neighborhood of the better known centres, a great number of discoveries, chiefly of silver ores, are reported throughout the district. Most of these isolated localities time did not permit me to visit. Mention may be made, however, of an extensive deposit of copper-pyrites, on the north side of Kootanie River, nearly opposite Forty-nine Creek, and of a peculiar and apparently important occurrence of magnetic iron-ore on the same side of the river below the lower fall.

"No large quantity of ore has yet been shipped from the deposits of the vicinity of Kootanie Lake and Toad Mountain, but small shipments of hand-picked rich ores have been made from time to time during the two past summers, representing a total value of over \$75,000. The ore has been carried down to the lake-shore on horses or mules, taken by steamer to Bonner's Ferry in Northern Idaho, thence over thirty miles by waggon to the nearest point on the Northern Pacific Railway, and then, as a rule, to Montana, where it has been sold and smelted. The cost per ton of transporting the ores to smelter by this route has been not less than \$30, and when to this is added the cost of mining and cobbing the ore, it is evident that very high-grade ore alone can thus be utilized, while even in the case of deposits capable of yielding a considerable proportion of such high-grade material, the greater part of the ore extracted, embracing the lower grades and requiring concentration, must at present be put to one side.

"It may thus be said that the West Kootanie district is at present waiting merely for some satisfactory outlet for its ores, and the developments already made, though for the most part merely of a preliminary character, are such as in my opinion to justify the expenditure necessary to provide such an outlet at once. It might be added, that capital for the proper development of the various discoveries is also required; but this will naturally follow so soon as the district is rendered more accessible, and can only be prevented from doing so, for a longer or shorter time, by the exaggerated ideas of the value of undeveloped properties too apt to prevail among the holders of claims in such new districts.

"The construction of a railway twenty-four miles in length along the unnavigable portion of the Kootanie River, between Nelson on the West Arm of Kootanie Lake and Sproat's Landing on the Columbia, would connect the navigable waters of this lake with those of the Columbia and Arrow Lakes, and would enable ores to reach the Canadian Pacific Railway at Revelstoke. A still more efficient and permanently satisfactory route would, however, be afforded by a direct line of railway from the north end of Kootanie Lake to Revelstoke, a distance of about eighty-six miles by the route which would have to be followed. Of this length of line, however, only that part between Kootanie Lake and the North-east Arm of Upper Arrow Lake need be constructed in the first instance, with a length of about fortyeight miles; the remaining portion of the distance being for a time served by steamer on the Columbia. Still another alternative outlet may also eventually be supplied by a branch line from the Northern Pacific Railway; but it is of importance to the prosperity of the district that it should have a means of communication independent of the rulings of the United-States Customs as to the introduction of silverlead ores, &c., into that country. The metals likely to be produced in quantity in the district are silver, lead and copper, all of which may be sold to advantage at first hand in the markets to which the same metals are exported by the United States.

"For the purpose of treating the ores from the East and West Kootanie districts, a large and well appointed smelter has just been completed at Revelstoke,

while arrangements for the erection of a second are in progress at Golden.

"In the above summary, particular prominence has been given to the main features which appear to be of immediate economic importance in the West Kootanie district. It is of course impossible to give here any general review relating to the province as a whole. It may, however, be stated that during the past summer a considerable amount of substantial progress has been made in the exploration of mineral deposits already known, while a number of new discoveries of promise have occurred. The output of ore, which has already in a small way been fairly initiated, will now doubtless increase from year to year, till British Columbia attains the prominence from a mining point of view which her great mineral resources guarantee. The rate at which this development may proceed must depend for the most part on the degree of energy which those primarily interested exhibit.

"I have reason to believe that the publication giving a synoptical account of the minerals of the province, printed last spring under the title of "Mineral Wealth of British Columbia," has already served a useful purpose, in directing the attention of capital to the province. I may also take this opportunity of stating that gypsum, one of the minerals enumerated in the above mentioned publication among those unknown in British Columbia, has since been discovered, and, according to the accounts received, in large quantity. The locality is stated to be on the Salmon River, about twenty miles distant from the railway. From the excellent quality of the specimens which I have seen, this discovery may prove to be of importance."

Mr. Amos Bowman was occupied during a portion of the summer in continuing the examination of the country on the Lower Fraser River, with special reference to the question of the occurrence of beds of coal or lignite-coal of economic importance. This work was briefly referred to in my last summary report and the facts then

ascertained were given. No report of the past season's work has yet been received from Mr. Bowman.

Mr. R. G. McConnell left Ottawa on the 30th of April, with instructions to explore the almost unknown country north of Lesser Slave Lake, bounded by the Peace and Athabasca Rivers. On this work he reports as follows: "I reached the Athabasca landing on the 19th of May, and descended the Athabasca to near the mouth of the Pelican River. From this point a portage of three miles brought us to the Pelican, some miles above its mouth, and above most of the bad rapids. We then followed the Pelican,—a small, winding stream,—to its source in Pelican Lake, and crossing the latter, followed up Beaver Creek for a short distance, and then made a portage of a couple of miles across the height of land to Sandy Lake, which drains northward to the Peace. Following the outlet of Sandy Lake, we soon reached the Wabiscaw Lakes, and crossing these, entered the Wabiscaw River, which we descended to its junction with the Loon, and then continued our way down the latter until it emptied into the Peace.

"Loon River, with its continuation, the Wabiscaw, has a length of about 350 miles, and drains an area of over 25,000 square miles. It might be navigated with strong, light-draught steamers, and by using the line in some places, up to the Grand Rapids, a distance of about 150 miles. Its principal tributaries are Bear River, Pine Creek, Panny Creek, Trout River and Wooden-house River—all fair-sized

streams, but reported to be very swift and filled with rapids.

"From the mouth of the Loon we ascended the Peace to Fort Vermilion for supplies, and, then returning, explored Little Red River for a distance of 200 miles. I ascended this river with the expectation of finding exposures of the bitumenbearing sands which outcrop along the Athabasca, but failed in this, as the river in its upper part does not cut down below the boulder clay, and for long distances is destitute of any valley whatever. The geological data it affords are in consequence very slight.

"Returning from Red River to Fort Vermilion a trip with pack-horses was made into the Buffalo-head Hills, after which we continued our way up the Peace to the Peace River landing, making on the way exploratory excursions eastwards into the

wooded country which borders the river.

"From the Peace River landing we crossed over to Lesser Slave Lake, and engaging there a small pack-train, started north along an execrable trail for Trout Lake, where we left the horses and pushed on, partly on foot and partly with canoes, until we reached the Wabiscaw and made connection with the previous traverse down that stream. On this trip I sketched in the outlines of White-fish Lake, Loon Lake, Bear Lake, Trout Lake and a host of smaller ones, and crossed and followed for some distance a score of streams, but obtained little geological information, as the country is everywhere so deeply mantled with drift that none of the streams which I examined have succeeded in cutting through it and so exposing the rocks beneath. "After returning to Lesser Slave Lake I coasted around it examining on the way

"After returning to Lesser Slave Lake I coasted around it examining on the way the tertiary plateau south of the lake, and Martin Mountain at the north-east corner, and then continued our way down Lesser Slave River to the Athabasca, and down the latter to the Athabasca landing, making side trips on the way to Moose Lake and Baptiste Lake. We arrived at the landing on the 1st October and started at once

for Ottawa arriving there on the 13th October.

"The whole country between the Peace and the Athabasca north of the Loon,—an area of about 25,000 square miles,—is generally forested, mainly with spruce and poplar, and is everywhere characterized by an abundance of lakes, and of muskegs and marshes. Narrow strips of excellent land are usually found along the main rivers and surrounding many of the lakes, and in the interior many areas often equal in size to an eastern county, might be selected which are well adapted for cultivation, but the wide morasses which separate these detract greatly from their value. Numerous streams, mostly draining northwards, everywhere intersect the surface. Few of

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these have large valleys, and they usually flow in a sluggish manner, often dilating into lakes in the flat districts, but break over the steeper slopes of the country in a series of strong rapids. With the exception of Loon River and Red River, none of the streams are navigable.

"Two ranges of hills cross the district in question. One of these the Buffalo-head Hills, commences abruptly about fifty miles above the mouth of the Loon, with an elevation of 1,000 feet, and running in a south-south-westerly direction, with a gradually diminishing height, dies away opposite the mouth of Battle River, while the other commences north of the east end of Lesser Slave Lake and extends in an easterly direction towards the Athabasca.

"Excellent sections of the rocks of the country are found along the Peace and Athabasca and the lower part of the Loon, but the geological information obtained in regard to the interior of the district is small, owing to the almost complete absence of deep valleys or scarped banks showing exposures. The exploration has, however, added largely to our geographical knowledge of this little known region.

"Lignite was found in several places along the Peace River, but in seams too small to be workable. It was also found in the Laramie plateau, south of Lesser Slave Lake. Here four seams were found ranging in thickness from one to four feet, besides a number of smaller ones, scattered through about 1,000 feet of shales and sandstone. This lignite is apparently of fair quality but has not yet been analyzed. Drift lignite was also found in Martin River near the base of Martin Mountain but was not traced to its source.

"Clay iron stone is of universal occurrence in the Cretaceous shales exposed along the Peace Valley, and, in many places between Battle River and the mouth of the Smoky forms thick accumulations at the foot of the cliffs lining the valley, some of which may prove to be of economic value.

"Gold was found in many of the bars along Peace River and in several places in sufficient quantities to deserve some attention. Four miles above the mouth of Battle River is a large bar, nearly a mile long, from which we obtained fifteen or twenty colours of fine gold by washing a few handfulls of the mixed gravel and sand in an ordinary frying pan. We tried the bar at several points, and always with the same result. A small stream descends from the plateau on the opposite side of the river, and by leading its waters across the river, which is here 1,000 feet wide, the bar might be easily and inexpensively worked on a large scale. A few miles further up the river another bar was examined, which yielded from twenty to forty colours when washed in the way just mentioned.

"A couple of colours of gold were washed out in one place on Loon River. This is of some interest as the Loon heads in a south easterly direction, and has no connection whatever with the mountains.

"Inspissated petroleum, lining cracks in calcareous nodules was found along Peace River for some sixty miles below the Peace River landing. At Tar Islands, about thirty miles below the mouth of Smoky River, there is a saline spring which is kept in a constant state of ebullition by the escape of natural gas. Small quantities of tar line the sides of the spring and float on the surface of the water. This spring and a couple of others which are reported near by, are situated near the axis of a broad, flat anticlinal, one of the essential conditions of a successful oil field. Gas and oil in paying quantities are most frequently found in these great natural domes, and the only element of uncertainty in this district is the presence or absence of some porous formation to act as a reservoir. It is possible that the loose sands found along the Athabasca extend this far, or that some equivalent formation occupies their place, but as natural sections are wanting this can only be proved by artificial sections obtained by boring.

"Bituminous nodules were also observed along the north side of Lesser Slave Lake, and a tar spring is reported on this lake near the mouth of Martin River, but its situation is kept a secret by the Indian who professes to have discovered it.

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"The Athabasca River was not examined during the past season, but it is proposed to devote next summer to it and its tributaries.

"Cost of season's exploration, \$2,183.63."

Mr. J. B. Tyrrell, assisted by Mr. D. B. Dowling, was engaged during the past season in making a thorough geological examination and completing the surveys of the shores and islands of Lake Winnipegosis. Red Deer, Swan, Dauphin and Waterhen Lakes were also surveyed and examined. The Red Deer River was explored up to the mouth of the Etoimami, and several excursions were made into the Porcupine Mountains. The expedition was eminently successful in obtaining a continuous section from the Cambro-silurian to the Devonian rocks, and in determining the exact contact of the latter with the overlying Cretaceous beds.

Mr. Tyrrell reports as follows:—

"On 11th May I left Ottawa and proceeded to Winnipeg, where supplies were obtained sufficient to last for the summer, after which I descended the Red River to West Selkirk.

"A small fishing smack had been purchased from Wm. Watts & Son, of Collingwood, and shipped by Canadian Pacific Railway to West Selkirk, whither Mr. Dowling had preceded me by a few days, in order to have the boat launched and properly rigged. Into this the cargo of supplies and general camp equipage, &c., was stowed, and on the afternoon of 23rd May we left West Selkirk and sailed down the river and thence northward across Lake Winnipeg to the mouth of the Little Saskatchewan River.

"In descending the Red River from Winnipeg the banks first seen consist entirely of grey stratified alluvial clay. This deposit gradually decreases in thickness, and at the first rapid the river is found to have cut through these bedded clays into unstratified till containing boulders. From this point downwards the banks constantly show little cliffs of boulder clay containing many boulders of white or cream colored limestone, mixed with some of gneiss, &c., and from those cliffs are falling the boulders that are afterwards carried into the channel, and there cause the rapids which form such serious impediments to the navigation of the river.

"At Lower Fort Garry the Cambro-silurian limestone makes its appearance for a short distance, and thence to the mouth of the river the banks are generally low and wooded, and the channel is wide and deep, so that boats have no difficulty in

ascending the stream after the bar at the south end of the lake is crossed.

"Leaving Red River, a straight course was taken across the lake to the north

end of Big Island and thence to Black Island.

"The object we had in view in visiting this latter locality was to examine the deposit of iron ore known to occur on its south shore, owned by the International

Smelting and Mining Company, of Winnipeg.

"The island itself lies at the north end of the southern expansion of Lake Winnipeg, fifty-four miles from the mouth of Red River, in a large bay or depression in the east shore of the lake, with deep channels both to the east and west of it; that to the west separates it from Big Island, on which there is now a flourishing Icelandic settlement. It has a total length of twelve miles and three-quarters in a direction N. 56° E, and a greatest width of four miles and three-eights, and an area of 40°4 square miles.

"The southern portion of the island is overlain by horizontally stratified sandstone and limestone of Cambro-silurian age, the latter being somewhat similar to that quarried at East Selkirk and used so extensively in Winnipeg as a building stone.

The surface of the island is thickly wooded with poplar, birch and spruce.

"Five miles and a half along the south-east shore from its south-west point, altered and highly inclined rocks are for the first time met with. They consist of light green cericitic schists and quartzites probably of Huronian age which are often externally reddened by oxide of iron. When first met with they strike N. 15° E. and S. 15° W. and dip at angles varying from 60° to 75°. These schists 12

outcrop along the shore for a distance of 450 paces, forming generally a rough,

irregular beach which slopes gradually into the water.

"Towards the north-east end of the exposure, however, a low rugged cliff rises above and behind the sloping beach, and on examination this cliff is found to consist in the centre of a mass of hematite, which extends along the shore for a distance of a hundred paces and rises to the height of seven feet above the water. As shown in sections running back from the shore, it dips away from the lake at an angle of 30°, and in the vicinity of the mass of ore the bedding of the schist is almost entirely obliterated.

"The ore is a more or less pure hematite, not very compact on any of the exposed surfaces, and with numerous little seams and particles of crystaline calcite scattered throughout the mass, along with which are also a number of small lenticules and crystals of quartz. In some places, especially near the outside of the mass, the hematite assumes quite a pisolitic or botryoidal structure, the spherules being often arranged in very well defined rows, the interspaces of which are filled with calcite,

"Towards the outside of the mass in places the ore has been converted for from a few inches to a foot into a hydrated oxide of iron or limonite.

"No analyses have yet been made of the typical specimens collected during the past summer, but a number of analyses have been made of specimens previously sent in from Black Island, both in the laboratory of the Geological Survey of Canada, and by Messrs. Gilchrist, Riley and Miller, in London, England.

"These show an amount of metallic iron ranging from 53.99 per cent. downwards. None were found to contain more than a trace of phosphorus. One specimen gave on analysis 2.026 per cent of sulphur, the sulphur being present in the ore as finely disseminated iron pyrites, while three other specimens show respectively 0.07,0.12 and 0.032 per cent of this impurity. In the other five analyses the sulphur was not determined. No iron pyrites was seen in the general run of the ore, but indications of decayed nodules could be traced in a very few places as yellow incrustations on the surface of the rock, and two or three small nodules were seen lying loose at the bottom of the cliff.

"As stated above, this deposit extends for about 300 feet along the shore, which has here a direction of N. 70° E., rises to a height of seven feet in the centre of the exposure, and dips back from the shore at an angle of 30°. The direction of its strike differs very materially from that obtained for the schists at the south-west end of the exposure, but in the immediate vicinity of the ore itself the bedding was entirely or almost entirely obliterated, so that it was impossible to determine in the short time at my disposal whether it was a true bedded deposit, or a lenticular inclusion in the schists.

"The hematite is underlain at the water's edge by a green quartzitic schist, and is overlain by a greenish white argillaceous breccia from one to two feet in thickness. Overlying this is a mixture of quartzite (or infiltrated quartz) and rather hard green schist, containing a considerable quantity of hematite. This quartzose band is again overlain by light green argillaceous or cericitic schists, very much crumpled, but generally dipping at an angle of 60° and striking on the west side of the ore N. 50° E. and S. 50° W. Beyond this is twelve feet of light green soft cericitic schist, and this then runs into the harder and more quartzitic schists, which comprise the rest of the whole exposure of Huronian rocks along this part of the shore.

"On our way north from Black Island we stopped for a short time at the north end of Big Island, at Big Grindstone Point and at Deer Island. The cliffs at these places present some very interesting geological features, being capped by compact impure Trenton limestone, below which are white, more or less soft, sandstones, interstratified with bands of light blue clay shale. These sandstone beds have been referred by Mr. Billings to the horizon of the Chazy of Eastern Canada, on the evidence of a few obscure fossils. These rocks require a much more extended examination, but some fossils were this year obtained from them, which, it is hoped, may determine more accurately their taxonomic position.

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"At Deer Island we were delayed several days by heavy north-west winds, so that it became advisable to secure the service of a little steamer that was passing, and obtain a tow to Swampy Island. While waiting at this island for the wind to moderate I secured a fine collection of fossils from a cliff of Trenton limestone, a mile west of the Fishing station. These were immediately packed and, along with the fossils and rock specimens from Black, Big and Deer Islands, and Grindstone Point, were shipped directly to Ottawa, where some of them have since been examined, and are described by Mr. Whiteaves in the Transactions of the Royal Society of Canada, Volume VII.

"From Swampy Island we sailed to the mouth of the Little Saskatchewan River, where the services of several Indians were secured, and the next four days were spent in tracking and poling the boat and canoes with their loads of provisions up to St. Martin's Lake, after which the greater part of a day was occupied in ascending the Partridge Crop River to Lake Manitoba. It was late in the evening of Saturday, the 10th of June, when we arrived at Manitoba House, where we were hospit-

ably received by Mr. and Mrs. Armit.

"The Little Saskatchewan River, from Lake St. Martin to Lake Winnipeg, is for much of the way a swift stream 250 feet wide, and with a depth varying according to the seasons from one to five or six feet. It has a total length of 31.2 miles and a fall in this distance of eighty-five feet, the larger part of which is accumulated into the

lowest seven miles of its course.

"Following the river upwards from its mouth for 1.1 mile, the banks are generally low and consist of stratified alluvial clay without pebbles or boulders. The water is moderately deep and flows with an easy current. At this point, however, a light brown calcareous sandstone makes its appearance at the bottom of the bank. This sandstone is in general horizontally bedded, though sometimes slightly undulating, and a few obscure fossils found in it show it to be of the age of the Hudson River formation. It is exposed in low outcrops along the bank for 1.75 mile, when it finally disappears. Throughout the distance it is overlain by stratified blue clay, five or six feet in thickness.

"Above the last outcrop of bedded rock the banks rise rapidly to a height of twenty feet above the bed of the stream, and are here seen to be composed of light grey unstratified boulder clay or till, containing pebbles and boulders, chiefly of white limestone, though some are of gneiss; above which the banks again fall, relatively to the stream, till at the distance of 7.5 miles from the mouth they are only four feet above the water. At this latter point there is another low exposure of rock, consisting of a soft, light, buff-colored, semi-crystalline, horizontally stratified dolomitic

limestone, in which are very few traces of organic remains.

"The river between the highest and lowest rock exposures here mentioned is one succession of heavy rapids, the bed of the stream being covered with gravel and Very few of these latter are of any great size, and it is rather their number than their magnitude that gives rise to the rapids. The channel is very clearly defined; there is no valley, other than the channel itself, and there is no bottom-land, though an occasional slide from some of the higher banks has sometimes the appearance of a kind of grassy terrace. The banks were once very generally timbered with poplar and spruce, but much of this has lately been burnt, and there is now little else to be seen but a succession of dead tree-trunks.

"This long rapid is, as will be seen, a very serious obstruction to the general navigation of the river, but on the other hand it will furnish a water-power that will be of the greatest value to Northern Manitoba in years to come. Above this rapid, which, on account of our heavy load, cost us two days of incessant labor to surmount, the river up to the Elbow, a distance of 8:36, miles is, on the whole, remarkably beautiful. It consists of stretches a mile or more in length of quiet water severed by six short though often swift rapids or shoals, where considerable care must be exercised in navigating the boat, though it was rarely necessary to lighten it. The grassy banks, not more than two or three feet in height, descend in a graceful curve to the edge of the water, or break down in little scarps 14

covered with sliding clay and pebbles. Open park-like woods of aspen poplar fill in the centre of the picture, and it is only now and then that occasional glimpses can

be had of the coniferous forest in the distance.

"Above the Elbow to Lake St. Martin, the river has a length of 15.28 miles, in which distance there are three short rapids, and three other short stretches of river where the current is very swift. For the rest it is generally wide and sluggish, with low, flat meadow banks, evidently often flooded, stretching back to a forest of poplar and spruce. Lake St. Martin is a shallow evaporating basin or expansion at the head of the Little Saskatchewan. It has an elevation of eighty-five feet above Lake Winnipeg or 795 feet above the sea, a shore line of eighty-five miles, an area of 1184 square miles, and a greatest depth, as far as at present ascertained, of fifteen feet. In it are situated a number of islands, with a total area of 31 square miles, some of which, however, are chiefly interesting from the tact that they, along with several hills in the vicinity, are composed of trap and gneiss which rise as bosses above the surface of the surrounding bedded Silurian limestone, though these limestones abut sharply against the gneiss, &c. and are quite undisturbed by it. The islands and hills are thus shown to be original inequalities in the paleozoic ocean floor on which the limestones were laid down, and as these are probably unusually high points on this floor, so there may be unusually deep depressions holding rocks much lower than any now known in Manitoba, the existence of which, however, will in all probability be determined only by close and long continued investigation.

"The total distance through St. Martin Lake from the head of the Little Saskat-

chewan to the mouth of the Fairford River is twenty-two miles and a half.

"The Fairford River flows from Lake Manitoba into Lake St. Martin, expanding in the middle of its course into a shallow, marshy lake, known as Partridge Crop Lake. The river has a total length of ten miles and a total fall in this distance of about fifteen feet. Most of this fall occurs in two rapids, one a short distance below Partridge Crop Lake and the other a mile and a-third in length, between the Fairford Mission and Lake Manitoba. This latter is caused by a bed of compact white limestone, which crosses the river at the head of this rapid, while most of the other rapids, both in this and the Little Saskatchewan River owe their origin to banks of hard boulder clay and the great numbers of boulders that fall from them and dam back the water.

"The total distance by water from Lake Winnipeg to Lake Manitoba is sixtythree miles and three-quarters, and the time occupied in the journey was a little

more than five days.

"After the week of severe and incessant labor, the Sunday at Manitoba House

was thoroughly enjoyed as a day of rest.

"Monday was spent in obtaining two experienced canoe men, and on Tuesday morning we set sail for the north end of Lake Manitoba and the mouth of Waterhen River. The wind proved to be contrary, and we were obliged to beat up to Garden Island, where a day was spent running tie lines in the north west portion of the

lake, to correct some errors that had crept into its topography.

"From Garden Island we crossed to the mouth of the Waterhen River, and with a fair wind sailed up the river to the Hudson's Bay Company's post, near the south end of Waterhen Lake. From Waterhen Lake we ascended the upper portion of Waterhen River, in which there are no rapids, and skirted along the low lying, gravelly shore on the west side of the long point of land that separates Lake Manitoba from Lake Winnipegosis, till the Meadow or Plain Portage was reached, and of which a careful examination was made. This portage has been already pretty thoroughly reported on by engineers sent out at the time the old location of the Canadian Pacific Railway was being surveyed. It is about two miles in length, and runs over a low flat ridge, the top of which is either marshy or wooded with small oak and poplar, the water in the marshes being dammed back by a ridge of sand and gravel running along the summit of the eastern slope. The top of this gravel ridge is the highest point on the portage, rising from ten to twelve feet above Lake Winnipegosis. This whole point may possibly be underlain by limestone, though none was seen, or it may be a compact ridge of till, with the exception of some of the higher narrow ridges

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of sand and gravel above mentioned. A little further to the south I was informed that in seasons of high water the Indians can pass from one lake to the other in their birch canoes without making any portage at all. From the Meadow Portage we coasted along the south shore of Lake Winnipegosis to the mouth of Mossy River, calling at Snake, Spruce and other islands on the way. Numerous exposures of fossiliferous Devonian limestone were examined. The islands, both here and throughout the rest of the lake, were surveyed with a Massey's patent floating log. A micrometer and compass survey was made by Mr. Dowling of the Mossy River, and the shores of Lake Dauphin were run in with the floating log. Descending the Mossy River we coasted northward along the west shore of the lake, past the old Salt Springs—where salt used to be boiled down for the supply of the Red River settlement, and from which water was collected for analysis in the laboratory of the Survey—to the mouth of Pine Creek, where there is another large saline area, from which brine was collected. From the Hudson's Bay Company's store at Pine Creek the specimens of brine and the fossils collected up to that date were shipped to Ottawa in order to avoid possible delay on my return in the autumn.

"North from Pine Creek the shore and adjacent islands were carefully examined, both in connection with any outcrops of the underlying rocks, and to gain all the other information possible about the structure of the islands, the mode of formation of beaches, &c. Many of the islands were found to be rounded or lenticular hills of boulder clay (Drumlins), lying with their longer axis parallel to the glacial striæ, and rising a few feet above the surface of the water.

"A number of soundings were taken, sufficient to show the general depth of the lake in different places, and a record was also kept of any timbered areas seen, although most of the forest has been destroyed by fires that have ravaged this country in late years. We reached the mouth of Shoal River on the 30th of July, but before ascending the river I considered it advisable to examine the islands in Dawson Bay, on many of which cliffs of bedded rock were known to occur. These islands were accordingly visited, and the scientific results obtained from them quite exceeded our most sanguine expectations. They were found to consist chiefly of thick-bedded dolomites very rich in fossils of lower and middle Devonian age, rising in vertical cliffs out of from twenty to thirty feet of water. The high point on the west shore of the bay, known as Point Wilkins, was also found to be particularly interesting, as it showed the lowest sandstones of the Cretaceous rocks in this area resting unconformably on horizontally stratified Devonian limestones. Leaving these interesting cliffs for a time, we took two canoes and ascended Shoal River to Swan Lake. This was a task of considerable difficulty, as the water during the past season was very low, and in periods of high north winds the bar at the head of the river was almost dry. Swan Lake was thoroughly examined, and a survey made of the islands dotted through it. These were found to present exposures of fossiliferous Devonian limestone similar to that seen in Dawson Bay.

"At the south end of Swan Lake a small brine spring is flowing out on the shallow, muddy beach, while a short distance back in the woods a hill rises to a height of between 200 and 300 feet. Its sides are beautifully terraced, showing successive stages in the recession of the water of the general lake under which this country was submerged, down to the conditions at present existing. On some of these terraces many traces are to be seen of a thick deposit of the white sandstone of the Dakota group. These Dakota sandstones have not previously been definitely recognized in Manitoba, though for a number of years they have been known to occur in the states, immediately to the south, and it has been thought that the bitumen-bearing sands on the Athabasca River are also of the same age. This discovery will form an important link in the chain connecting the typical sections in the United States with those in the far North-West of Canada. The sandstones are here found not to be bituminferous, however, and no bitumen is seen in the underlying limestones, as there is said to be in the limestones on the Athabasca. Their position, immediately overlying the horizontal Devonian limestones, also for [PART III]

this district practically settles in the negative the question of the existence or non-

existence of intermediate Carboniferous rocks.

"From the west side of Swan Lake an excursion was undertaken along the foot of the Porcupine Mountain to Wild Turnip River, a branch of the South Woody River, where a good section of Cretaceous beds was seen, and meanwhile Mr. Dowling crossed to Bell River, and ascended it to the summit of the mountain, also obtaining an excellent section of the Cretaceous shale and the overlying drift. North of Porcupine Mountain the Red Deer River was ascended in canoes to Red Deer Lake. There horses were obtained from a small band of Indians living at the west end of this lake, and with two men I struck back to the foot of the mountain and obtained a good section of the Niobrara-Benton rocks on the North Woody River. From this stream two gravel track ridges were followed alternately to near the mouth of the North Etoimami River, where they merge into an extensive sandy delta plain. An old trail was then followed down the north side of Red Deer River back to the lake. The valley in all its upper portion was found to be thickly filled with till or alluvial deposits. On approaching the lake, however, the river cuts a deep gorge, in which the Dakota sandstones are well shown. The whole of the wide plain or valley lying between the Porcupine and Pasquia Mountains would appear to be underlain by rich alluvial soil, and will doubtless in the near future be the home of a thriving population. Portions of it are now thickly wooded with large spruce, which if protected from destruction by forest fires will furnish Manitoba with an abundant supply of timber.

"From the mouth of Red Deer River we coasted round the north shore of Lake Winnipegosis to the two Mossy Portages, which are respectively the winter and summer highways to Cedar Lake. The western Mossy Portage was examined and surveyed by Mr. Dowling, who found it to be between four and five miles in length. running for the greater part of the distance through a deep mossy swamp, thinly wooded with small spruce and tamarac. The eastern portage runs along the summit of a gravel ridge for all but the northern half mile of its course, the land descending on either side into a mossy spruce and tamarac swamp. About the middle of the portage some small cedars were first noticed, and from here north to Cedar Lake they may be seen at intervals. An old corduroy road is still in existence at the northern end of the portage, made by the Hudson's Bay Company to facilitate the transport of their goods in carts from one lake to the other.

"From Mossy Portage we descended the east side of the lake, where, on account of the extreme low stage of the water, the underlying limestone, here found to be of Silurian or of Cambro-silurian age, was in many places visible. at its mean elevation this rock would be entirely covered. When the water is

From the Hudson's Bay Company's post at Pine Creek I despatched Mr. Dowling with the boats to Manitoba House, where he arrived safely on the 20th of October. On the way he again examined some rock exposures in the south-eastern portion of Lake Winnipegosis, and made a survey, with the floating log, of Waterhen Lake. Meanwhile, I took horses and carts and made an odometer survey of a new cart trail back to one of the upper gravel ridges near the foot of the Duck Mountain, here connecting with my survey of 1887. I also ascended one of the forks of Pine Creek to the summit of Duck Mountain, determining the existence of the Pierre shales in this vicinity. I then drove southward and then eastward through the flourishing settlement on the Lake Dauphin plain to Manitoba House, where I arrived on the 21st of October. We then sailed southward to Westbourne, where the men were paid off, and the boats laid up for the winter.

"Returning to Winnipeg, I made a hasty trip to Deloraine, in south-western Manitoba, where a deep well is being sunk through Cretaceous shales in the hope of finding water. An excellent set of specimens from this well was obtained. The gentlemen engaged in sinking this well have shown the most commendable enterprise in their endeavor to supply a very pressing want in this beautiful section of country; and also, as soon as asked to do so, in collecting specimens from every five or ten feet bored through, in order to make the well of thorough scientific and practical value to the surrounding country. It is sincerely to be hoped that a large supply of water will be obtained as soon as the permeable Dakota sandstone is struck.

"I returned to Ottawa on the 10th of November, having been absent exactly six

months.

"During the year a very large and interesting collection of Cambro-silurian, Silurian and Devonian fossils was gathered, and typical rock specimens were obtained from all the exposures of older rocks, and also from many places where the sands, clays and gravels were examined. Having a small schooner, we were able to transport them to the railway, whereas, if we had been entirely dependent on canoes, it would have been very difficult or perhaps impossible to have got them out of the Specimens of brine from all the principal springs in Swan and Winnipegosis Lakes, and Red Deer River, were also secured, and are now in the Museum of the Survey.

"One hundred and ten photographs were taken, illustrating points of geological and historical interest, and showing the general character of the country and the peculiarity of its native inhabitants. Most of these photographs were developed by

Mr. Dowling in the field.

"It affords me much pleasure to acknowledge the efficient assistance that I have received from Mr. Dowling throughout the season, not only in carrying on the surveys connected with the exploration, but in carefully collecting fossils and rock specimens from any exposures visited.

"Cost of season's exploration, \$2,176.73."

Dr. A. C. Lawson, assisted by Messrs. W. H. Smith and Wm. Lawson, was engaged during the season in prosecuting geological and topographical surveys in the country north-west of Lake Superior, in continuation of the work of which he

has had charge for some years past. He reports as follows:-

"The usual preliminary work of purchasing supplies and hiring men for the season was begun at Port Arthur on 31st May, and a few days later the party proceeded to Savanne, where the survey work proper began. It was deemed expedient to divide into two parties, Dr. Lawson, as usual, devoting his time to the study of the geology of the region; while Mr. Smith, accompanied by Mr. W. Lawson, with a somewhat larger outfit of canoes and men, was engaged throughout the season in making surveys between Savanne and Pine Portage, and thence throughout the country south of the Seine River as far as Sturgeon Falls.

The nature and extent of these surveys may be briefly summarized as follows:— 1. A transit and micrometer line down the old Dawson Route from Savanne to

Pine Portage, and thence to the north end of Hunter's Island, connecting there with

previous surveys.

2. A transit and micrometer line from a point on the above line, running down the Atic-okan River, and thence down the Seine River to Sturgeon Falls, where connection was made with previous surveys in the Rainy Lake region. These two lines aggregate about 160 miles in length, and afford an excellent base line, to which can be tied the various more rapid compass and micrometer, or compass and log surveys, of the numerous lakes which are distributed over the region.

3. The survey of all the known lakes south of the Seine River, with prismatic

compass and log or micrometer.

4. The survey of a chain of lakes in Hunter's Island which it had been found

impossible to finish the previous season.

The measurements of these various lake surveys aggregate about 450 miles, and the distances so measured served as the bases for compass triangulation whereby other distances were determined. The area under survey comprised about 1,400 square miles.

Throughout this survey work Mr. Smith took careful notes of the geological features of the country through which he passed, and these, together with an excellent suite of rock specimens which he collected, will be of much service in the mapping

of the region, and in giving direction to future geological examination by Dr. Lawson. Mr. Smith also visited the new iron locations on the Seine River route, which are attracting attention, and procured specimens of the ores. His topographical survey completes all the field work necessary for the construction of the south half of the Seine River sheet. It is estimated that another season's work will be required for the completion of the northern half.

While Messrs, Smith and W. Lawson were carrying out these surveys Dr. Lawson proceeded with the geological examination of a portion of the country where topographical surveys had already been made, supplementing these by his own sketches when necessary. From Savanne he proceeded across Lac des Milles Lacs to the portage leading to Kashabowie Lake, and thence across Kashabowie Portage to Shebandowan Lake. From the west end of this lake a route leading by several long portages and small lakes was followed to Round Lake, and thence the Kahwawiagamak River was followed to Hunter's Island. Hunter's Island was the principal field of study; and this route to it was followed chiefly because it passed through a new country which had not been before examined. The greater part of two months was spent by Dr. Lawson in circumnavigating Hunter's Island, and in traversing it in various directions by the numerous chains of lakes which lie within it. The work done together with that of a former year, supplemented by the notes and specimens secured by Mr. Smith in 1888, while making a topographical survey of the island, supplies us with all the data necessary for the compilation of a geological map of the region, the drafting of which is now under way. This sheet, which is known as the Hunter's Island sheet, will, it is expected, be ready for the engraver in the course of a month.

Hunter's Island is interesting economically, chiefly for the iron ores associated with jaspery beds which occur on its south-east side, and which are entirely analagous, geologically, to the famous iron ores of Vermilion Lake at Tower, Minnesota. Some patches of good pine at the west end of the island also are of considerable value. Having thus completed all the work that was deemed necessary for the Hunter's Island sheet, Dr. Lawson proceeded to Port Arthur for the purpose of inaugurating some preliminary enquiries into the ancient beaches and terraces of Lake Superior. In various parts of the continent the ancient shore lines of lakes which were once necessarily perfectly horizontal are found at the present day to be tilted at a considerable slope, the measurement of which affords us important data for determining the extent of the local elevation or depression of the crust of the earth in quite

recent geological times.

It becomes, therefore, desirable to ascertain whether the old beaches of the north shore of Lake Superior will throw any light on this important problem With this object in view, Dr. Lawson walked along the Canadian Pacific Railway track from Port Arthur to Terrace Bay, north of the Slate Islands. Numerous old beaches were observed and many interesting notes on the geology of the sections along the railway and the coast were obtained. It was seen that there is a regular succession of beaches and terraces which range between the present level of the lake and an altitude of probably 350 feet. It would seem from the observations made that the beaches run to higher altitudes towards the east, and it was concluded that very interesting results would be obtained by a systematic levelling of the beaches from Sault Ste. Marie to Pigeon Point. This trip along the railway occupied the latter half of August, and at its conclusion Dr Lawson proceeded to Toronto to attend the meeting of the American Association for the Advancement of Science, in the geological section of which he read two papers on subjects pertaining to Canadian geology. On the way back some days were spent on the Huronian rocks between Sudbury and Sault Ste. Marie, for the purpose of comparing them with the analogous formations north-west of Lake Superior. On the return to Port Arthur the remainder of the season was occupied in levelling up instrumentally the old lake beaches between that town and Pigeon Point; in visiting and examining the Badger silver mine, one of the newest and most successful of the mining enterprises of the region; and in investigating certain reported finds of native copper in the townships of Blake and Crooks.

The season's work was brought to a close at Port Arthur on 17th October when Dr. Lawson and party left for Ottawa.

Cost of season's operations for both parties \$2,300

Mr. E. D. Ingall, Mining Geologist to the Survey, has been engaged during the summer in continuing the investigation into the nature and lithological surroundings of the deposits of apatite of the River du Lièvres district, in Ottawa county, P.Q.

He says: "In prosecuting this work during the past summer, the main lines upon which it had been started the previous season were adhered to, and efforts were made to further elucidate and understand the nature and origin of the pyroxenite belts, with which the apatite deposits are mostly associated, and the relationships of the same to the rocks forming the general mass of the district, as well as to add to our knowledge of the nature and habits of the apatite deposits themselves.

"In connection with the latter, as many deposits were visited and studied as the time necessarily expended upon the other branch of the work would allow of, whilst the principal mining developments of the district were visited from time to time, so as to watch for and note any new features that might be brought to light during

their progress, plans being made of some of the chief of these.

"In pursuance of the first object mentioned, the main source of information on these points would naturally be found in a close study of the contacts of the pyroxenites with the surrounding gneissic and granitoid rocks, so that the investigation thus naturally confined itself to a detailed examination of these points along some of the more thoroughly worked belts, where in the course of considerable mining developments the ground had been sufficiently cleared of bush, &c., to give a reasonable chance of seeing sufficient rock exposures to acquire the evidences sought.

"Thus, the geological work was found to concentrate itself chiefly on the broad and extended belt upon which are the considerable excavations of the Crown Hill, High Rock and Star Hill mines, time being also found to similarly investigate for some distance the belt on which are the openings of the North Star mine and adjacent properties, at which latter point, the belt being narrow and the bush and surface cover having been more thoroughly removed by clearance and bush fires, better facilities were afforded than elsewhere for acquiring the necessary data.

"With a view to illustrating some of the results thus attained, and as a necessary prelude to the purely geological part of the work, the limited areas thus dealt with were mapped accurately and in detail, where small the plane table alone was used whilst where of greater extent that instrument was used to fill in the detail in con-

nection with skeleton transit and chain surveys.

"In this way it is hoped to obtain a few thoroughly worked-out examples which may serve as illustrations of the numerous similar belts in the surrounding country and of their nature, associations and habits, thus possibly adding something to our stock of knowledge of the pyroxene belts and the associated apatite deposits. Such systematized knowledge, systematically applied, must necessarily be the basis of all intelligent mining ventures."

Mr. Jas. White continued attached to the party as topographical assistant, and besides laying out the transit and chain skeletons for the more detailed mining plans and some underground surveys, was mostly engaged completing the necessary surveys throughout the surrounding district for the compilation of an accurate topographical map of the area comprehending the chief mines, with a view to showing their position, means of communication and other such information pertaining to the phosphate district in general.

The topographical work was commenced under Mr. Jas. White's direction on 10th June and finished 16th September, whilst Mr. Ingall followed, and was occupied in the geological investigation from the 10th of July to the 28th of September.

The total expenditure on this work was \$1,399.56.

Mr. Ingall having been recently appointed to the vacant position of Mining Engineer to the Geological Survey, in charge of the collection of the statistical and other information for the compilation of the annual report on the mining and mineral production of the Dominion, his time will be necessarily considerably encroached upon by these new duties, but it is hoped, notwithstanding, during the winter, to prepare for publication the results of the above mentioned work in the Lièvre phosphate belt.

During the season of 1889 Dr. Bell has continued the geological survey of the district around Sudbury, on which he was engaged the previous year, and he has now completed this work over an area measuring 72 miles from east to west by 48 miles from north to south, which will be represented on sheet No. 130 of the regular series of maps on the scale of four miles to one inch. A part of this area has been surveyed into townships by the Crown Lands Department of Ontario. Some of the lakes and rivers within it had been traversed by the late Mr. Alexander Murray, of the Geological Survey. in 1856. These surveys, and also those of the Canadian Pacific Railway lines were utilized by Dr. Bell in laying down his work, but it was found necessary to do a good deal of topographical surveying before the natural features within the limits of this sheet could be correctly mapped. In this work Dr. Bell was again assisted by Mr. A. E. Barlow, who left Ottawa for the field on the 10th of June and returned on the 18th of September, while Dr. Bell started on the 5th of July and returned on the 26th of October.

In addition to the geological investigation work of the season, Dr. Bell made a micrometer survey of Pogamasing Lake and the Spanish River, from near Spanish Forks to the township of Hyman, a distance of about seventy miles, below which the river is laid down on the maps of the Ontario Crown Lands Department and those of the late Mr. Murray. He also made a careful track-survey of Onaping Lake, which was found to be about thirty miles in length, and of a smaller lake lying parallel to it on the west side, and a similar survey of the Onaping River throughout its entire course. Mr. Barlow's time was mostly occupied in surveying the following lakes and rivers by means of the micrometer, at the same time making notes on the rocks which came under his observation: Panache Lake (which had been outlined by Mr. Murray in 1856), two small lakes which he named Wavy and Gabodin Lakes lying to the north-east of the east end of Panache Lake, a canoe-route from Round Lake to Rat Lake, the southern branch of Veuve River, Aiginawassing, Elbow and Red Deer Lakes, the western bay of Lake Nipissing, parts of two western branches of Wahnapitæ River, and the Vermilion River from the intersection of the main line of the Canadian Pacific Railway to a point east of the township of Lumsden.

In the district covered by the above mentioned sheet there are a few settlements, chiefly along the line of the Canadian Pacific Railway, but the district may be described in a general way as still in a state of nature. Scarcely any common roads exist, and it was therefore necessary to carry on operations principally from the railway and from the lakes and rivers as bases from which the minor explorations were made. The surveyor's lines were often useful, not only for locating geographical positions but in facilitating journeys in the woods. Still, there were some tracts in which there were neither the advantage of such lines nor of canoe routes, and in these it became necessary to make the best traverses possible through the primeval forest.

The following are some of the most notable geological features within the limits of the above sheet: The western and north-western part of the ground is occupied principally by a great area of reddish quartz-syenite, which extends beyond the limits of the sheet in these directions. It appears to belong to the Huronian rather than the Laurentian system. The position of the boundary between these two systems was traced north-eastward across the sheet,—the Laurentian consisting almost

entirely of gneiss, occupying its south-eastern corner. There is also a considerable

area of these rocks in the middle of the northern part of the sheet.

The great Huronian belt of Lake Huron runs diagonally across the whole sheet, from south-west to north-east, and embraces a considerable variety of rocks, including crystalline schists, quartzites, breccias, conglomerates, argillites, greywackés, diorites, diabases and syenites. These rocks seldom appear to run far as distinct bands with parallel boundaries, but have rather the form of elongated masses, which pinch out in both directions or give place to other rocks. The Huronian region, including the syenitic areas, is traversed by diabase dykes, newer than any other rocks of the district, which are remarkable for their persistence in length. Their commonest direction is about west north-west.

Ores of copper and nickel are the most important of the economic minerals which have yet been discovered in the above district. Five mines are in operation at present. Three of them are worked by the Canadian Copper Company, namely: the Stobie, three miles and a half north north-east of Sudbury Junction, the Copper Cliff, three miles and a half south-west of the same point, and the Evans, one mile further south. The Dominion Mineral Company is working a mine, situated about a mile north-east of the Stobie, and the Messrs. Vivian, of Swansea, are opening the Murray Mine, on the main line of the Canadian Pacific Railway, three miles and a half north-west of Sudbury Junction. Similar deposits of these ores have been found in various localities within the district examined, and these will be described in the fuller report to follow.

The general character of the mixed ore and its mode of occurrence are nearly the same in all three localities. It consists of pyrrhotite in which some of the iron is replaced by nickel mixed with more or less chalcopyrite. These sulphides are mingled with fragments of all sizes of quartz-diorite in some cases, and of a kind of greywacké in others, so that the ore has often the appearance of a conglomerate. The ore-bearing masses are of all sizes, and they take the form of lenses or pod-shaped bulges, conforming with the large scale lamination of the strata. Around the richer ore-bodies the country rock is filled with coarse and fine impregnations of the sulphides. These deposits may be described as "stockwerks" in which the vein structure is very obscure. The strata of the whole district generally stand at high angles, approaching the perpendicular, so that the underlie of the ore-masses is usually very steep. The rocks immediately associated with them are not always the same, but it most frequently happens that the ore itself occurs in some form of diorite, more particularly in diorite brecia, with quartz syenite or gneiss on one side. The diabase dykes above referred to were seen near the ore deposits in several instances, and further search may show their presence in all cases. It would not be surprising if they should prove to have had some connection with the concentration of the ore in these masses, which may be locally enriched portions of certain ore-bearing belts.

Two smelting furnaces, capable of reducing 300 tons of ore a day, are in operation at the Copper Cliff mine. One of them has been running without interruption for nearly a year. The other went into blast on the 4th September. Both the Dominion Mining Company and the Vivians are erecting similar blast furnaces.

The rock specimens collected in the above district during the season number 285, but 665 had been obtained in the same district the previous year, making a total of 950 specimens.

The cost of the season's field work was about \$1,800.

Mr. Low was employed during the past summer in completing the geological investigation of the N. E. sheet of the Eastern Townships map on the north side of the St. Lawrence River, comprising the southern portion of the counties of Quebec and Portneuf—the work extending from Ste. Anne de la Parade on the west to the Montmorency River on the east.

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He left Ottawa 23rd May, and was engaged until 17th June, making a micrometer survey of the Ste. Anne River and its north branch, from the northern limit of the sheet to the St. Lawrence.

Odometer surveys of the roads to the west of the Jacques Cartier River occupied the time to 31st July; when a geological examination of that river was

made, which lasted until 5th August.

The road survey to the eastward was then continued up to 1st October, with four days spent in making a section along the north shore of the St. Lawrence, from

Deschambault to Cap Rouge.

In all eight hundred miles of surveys were completed, comprising six hundred and four miles of odometer, seventy-five miles of micrometer, seventy-one miles of pace, and fifty miles of track surveys. By these surveys the contact of the Laurentian gneisses with the Cambro-silurian limestones and shales was traced out, and the boundaries of the latter formation established.

The rocks of the Laurentian area were carefully examined for economic minerals. Magnetic iron ore in small disseminated masses was found to be common in many localities, but never in sufficient quantities to be practically worked, but

showing that such masses may exist,

The prevalent rock being a mica gneiss without pyroxene or limestone, no phosphate areas were found, and are not likely to be discovered in this vicinity. The areas covered with drift and superficial deposits were noted, and will be mapped on the sheet, as they are of considerable economic importance, from the deposits of bog iron ore which occur associated with all, or nearly all of the stratified sands of the region.

The work of Dr. Ells during the past season was, for the most part, confined to the south-west quarter sheet map of the Eastern Townships, and to that portion lying south of the Grand Trunk Railway, between Acton and Richmond, to the Ver-

mont boundary.

In addition, however, accurate chain and micrometer surveys were made of the Black Lake and Thetford asbestos areas, in order to complete the proposed map of that district. The area examined during the season contains nearly all the outcrops of serpentine in the south-western section. A careful study of these was made to determine the presence of asbestos-bearing belts. The character of the serpentine in this section appears to present several points of difference as compared with that from Thetford and Coleraine, and in so far as examined, asbestos in workable quan-

tity has not yet been found in it.

The results obtained during the past season are not yet in shape for publication, more particularly as regards the determination, of the exact age and the relative position of several of the slate formations. The Sutton mountain range of Pre-Cambrian schists and associated rocks was carefully traced to the River St. Francis, and the position of the black slates series, as intermediate between these, and the overlying red and green slates and sandstones of the Sillery, verified; but further careful examinations of these belts will be necessary during the coming season, in order to determine from the evidence of fossils, if possible, or in some other way, the exact horizon of the rocks which extend across into Vermont, and in which surveys are now being carried on by the United States geologists; more especially by Prof. Walcott.

But little work is being done in this section at present in the way of mining.

But little work is being done in this section at present in the way of mining. The new mine of the Memphremagog Mining Company, lot 28, range ix, Potton, was examined. It shows a body of ore, mostly iron and copper pyrite, about sixteen feet thick, and extending for several hundred yards. This is capped by a considerable body of bog iron ore, which should be valuable if facilities for shipping and smelting were afforded. But little work other than exploratory has yet been done at this place.

Some efforts have been made to develop asbestos areas on the east side of Brompton Lake, on lot 26, range x, Brompton Gore, but at present this locality is accessible with difficulty, and the indications are not equal to those presented at Thetford and Coleraine. On lot 7, range xv, Cleveland, the slate quarry, formerly

Stubs', has been re-opened by Mr. Bedard and others, and some very good slate extracted. At the time of my visit, however, this work was not sufficiently advanced to warrant an opinion as to its ultimate success. On lot 18, range X, Brompton Gore, a new quarry, in red rock slate, has been started.

Quarries of excellent granite are in operation on the east side of Lake Memphre-

magog, in the area which extends across the Vermont boundary.

During the past season Dr. Ells was assisted by Mr. Giroux. The surveys of lakes, roads and streams aggregate 750 miles, of which 17 were by chain, 87 by micrometer, 105 by pacing and 547 by odometer. A large collection of graptolites in a very fine state of preservation was obtained from the black slates on the west side of Memphremagog Lake.

The cost of the season's operations was \$1,100, and occupied from the 27th

May to the 18th October inclusive.

Mr. F. Adams left Ottawa on 10th July, 1889, and spent about three weeks in continuing the examination of that portion of the St. Maurice district which is included in the N.W. sheet of the Eastern Townships map. On this work he reports as follows:—

"I proceeded first to St. Michel des Saints, a village situated in the township of Brassard, in the county of Berthier, and having secured a canoe and two men, made an examination of the Rivière du Poste (or Rivière au Lac Clair, as it is called on our map), as well as of the lakes out of which it flows. I then examined the country about the Red Canoe River and descended the Matawin to Birch Rapids, about fifteen miles from its junction with the River St. Maurice.. then returned to Montreal by way of Shawenegan, reaching that city on 2nd August The country examined is all underlain by Laurentian gneiss, that along the Matawin, east of Ile de France, dipping at very low angles, and in many places lying flat. Thin bands of crystalline limestone were found at several places on the eastern arms of Lac Croche (Lac Long), as well as on the discharge of Lac Clair, and at three points along the course of the River Matawin, viz.: (1) in woods about four miles North of Rapids Lacroix, (2) just above Rivière à l' Aigle, and (3) two miles and a-half below this river. In the last mentioned locality the limestone band is about ten feet thick. These limestones hold little grains of serpentine, mica, apatite, &c., and in character are identical with the Laurentian limestones elsewhere. Bands of quartzite, and occasionally thin bands of pyroxenite, are also found associated with these gneisses; their presence, taken in connection with that of the crystaline limestones, shows that the series cannot be considered as belonging to the lower or fundamental gneiss, as had previously been stated. The only anorthosite which was observed, with the exception of that in the township of Shawenegan, which was mentioned several years ago by Mr. McConnell, was a small band which crosses Ile de France, situated in the River Matawin, a short distance below the mouth of the Rivière du Poste, and which was again met with about five miles north of the Matawin, between Red Canoe Lake and the Rivière du Poste."

Cost of season's exploration, \$158.10

The Rev. Abbé Laflamme has made some further interesting observations in working out the geology in the Saguenay region and in determining the position and approximate extent of certain areas of Cambro-silurian limestones which lie there in depressions in the Laurentian gneiss, but are often largely covered by superficial deposits. Such areas are of considerable economic importance as future sources of lime. Further details of the work in this district will be given in the Annual Report.

Cost of season's work, \$400.00.

On the work in northern New Brunswick and Quebec, Professor Bailey reports as foilows:—

"The work of the summer of 1888 having been devoted chiefly to the study of the Silurian system in its extension northward to Lake Temiscouata, as well as east and 24 [PART III]

west of the latter, and to the preparation of the map sheet (No. 17 N.E.) illustrating the same, that of 1889 has had for its main object the study of the Cambrian and Cambro-silurian rocks, making up a portion of the so-called Quebec group which lies between the lake referred to and the shores of the St. Lawrence, being the area to be included in the next succeeding sheet (No. 18 S. E.) of the series of

maps of New Brunswick and Quebec.

As connected with this work, and with a view to a better understanding of the Cambrian strata of the succession, a few days were devoted, in company with Mr. G. F. Matthew, at the commencement of the season, to a revision of those which occur in the valley of the St. John River, in King's county, N.B., and which were referred to in the report of 1873. This revision led to the recognition, in the district mentioned, of most of the sub-divisions of the Cambrian system, as distinguished in the St. John basin, including the red rocks of the series (Series A.) bands a, b and c of Division 1 (Series B,) and an imperfect representation of Division 2; while Division 3, containing the Dolgelly and Arenig faunas, appeared to be wholly wanting.

In Division 1, Band b, of Caton's Island, examples were collected of Obolus pulcher; Matthew, a fine species resembling Lingula (?) favosa, Linnarson, of the Eophyton sandstone of Sweden, but larger, and (at Belyea's Landing) specimens of Volbrothella tenuis, a species of the blue clay of Russia, thus, according to Mr. Matthew, extending the vertical range of this species in New Brunswick from near the base of the Cambrian deposits upwards nearly to the Paradoxides beds. The fossils referred to

have been forwarded to the office of the Survey.

After the examinations last described I proceeded northward to the Temiscouata region, devoting a few days, on the way, to search for fossils in the supposed Cambro-silurian rocks of Carleton county, but without adding anything to the informa-

tion previously had upon the subject.

Upon reaching my proper field of work, my first efforts were given in accordance with your instructions, to the examination of the region about the head waters of St. John River and adjacent to the Quebec boundary, with a view to determine, if possible, the limits of the Silurian basin in that direction, and the distinction between the latter and the resembling rocks of the Eastern Townships, which, formerly regarded as Upper Silurian, have recently been referred by Dr. Ells, upon palaeontological and stratigraphical grounds, to an earlier horizon. For this purpose a traverse was made across the country from L'Islet, on the St. Lawrence, to Big Black River, and down the latter to the St. John, this being followed by the ascent of the last-named stream to one of its principal sources in Baker Lake; and a return traverse, by way of the north-west branch of the St. John and its tributary, the Daaquam, to St. Magloire and St. Valier. These traverses afforded good opportunities for observing some of the varying aspects of the so-called Quebec group, the members of which are generally well exposed; but as regards the rocks in the country lying to the south of the latter, the age of which was one of the chief questionssought to be determined, the results were much less satisfactory, owing chiefly to the almost entire absence of any exposures from which conclusions could be drawn. As far as could be seen, no appreciable change in the character of the slate occupying the valley of the St. John was discovered, nor any reason for regarding the strata about its head as other than an extension of those of Silurian age found around the lower half of Lake Temiscouata, and over large areas in northern New Brunswick, Quebec and Maine. At one point only (the falls of the North-West Branch) were they found to be fossilferous; but the remains, in the form of branching and corrugated stems of plants, were too imperfectly preserved to be of any value in the determination of the age of the strata. With the view, if possible, of obtaining further information upon the subject, a few days were subsequently spent, in company with Dr. Ells, in the vincity of Sherbrooke, where a similar doubt had arisen as to the age of certain slates which hitherto had been regarded as Silurian, but which Dr. Ells now considers as belonging to the Cambro-silurian. The close resemblance of portions of them to the slates of the Upper St. John valley is certainly quite marked, but without more extended information than we have as yet been able to

obtain upon the subject we do not feel justified in concluding that the two are of the

same age.

Examinations were also made of portions of the country adjacent to the Temiscouata portage road and in the vicinity of Rivière du Loup, St. Paschal, Kamouraska, Cacouna and L'Islet, partly alone and partly in company with Mr. McInnes. Having taken the field on the 1st of July, my work was continued, with the inter-

ruption of a few days only, until the 1st of October."

Mr. McInnes left Ottawa on the 10th of August and arrived at Rivière du Loup on the 12th. The first part of the season was spent in pacing a section along the coast, from the long wharf at Rivière du Loup eastward as far as St. Luce. But few fossils were found in the pre-Silurian rocks during the season, Fucoidal marking, or trails, occur in the greenish-grey slates which underlie the limestone conglomerates, and were noticed at various points along the coast. Numerous fragments of trilobites were found in a pebble in the limestone conglomerate near Trois Pistoles, and obscure brachiopods and a fragment of a trilobite in bands of fine limestone conglomerate, enclosed in soft shale, at the portage road above Rivière du Loup.

A few days were spent on the Rimouski River, in an examination of the high ridge south of Lac Ferri. This was found to be made up of undoubted Silurian strata, highly contorted slates, with bands of limestone. A collection of fossils was made from the Silurian shales at Tuladi Falls, on the Rimouski River. These have

not yet been examined.

The remainder of the season, after the 20th of September, was devoted to a survey, by prismatic compass and odometer, of the roads of the district. Two hundred and sixty-two miles were surveyed in this way, and about one hundred miles by pacing. The field work was closed on the 23rd of October:—

"In the study of the region referred to we have necessarily had constantly in view the work of previous laborers in this field, and more particularly the recent investigations made by Dr. Ells and his associates in the Gaspé peninsula, and by the same gentleman, as well as by Dr. Selwyn and others, in the Eastern Townships and around Quebec. As the results of these investigations, in common with our own, differ in important particulars from those of earlier investigators, and tend to place the age and succession of the so-called Quebec group in a very different position from that which it first occupied, we had hoped that the report of Dr. Ells, embodying these results, would have been in hand during the progress of our own field work, and have been available for purposes of comparison. As this, however, has not been the case, we are at present unable to judge how far our conclusions are concordant with or likely to be modified by those obtained by more extended examinations. In view of this fact, and the desirability of the avoidance of any conflict of opinion, it is suggested that a more lengthened report upon the work here reviewed be postponed, until such time as will allow of a further study of the important questions involved."

Mr. Chalmers left Ottawa on the 2nd of May, with instructions to continue the exploration and mapping of the superficial deposits of southern New Brunswick, on which he had been engaged during the two previous seasons (1887 and 1888). E. W. Swinyard accompanied him as volunteer assistant. The area on which Mr. Chalmers has now spent three seasons is that delineated on the three 4 sheets—1 S.W., 1 S.E. and 1 N.E.—in which lie the counties of Charlotte, St. John, King's, the chief part of Queen's, and portions of Albert, Westmoreland and Sunbury. The survey of the surface geology of this area is now completed, at least as far as the nature of the country will admit of such being done in detail. Considerable portions are still unsettled and in a wilderness state, and in these, of course, the study and mapping of the surface deposits could only be done in a very general way. The data on hand seem sufficient now, however, to enable the surface geology to be exhibited on the three sheets referred to with a considerable degree of detail, and to prepare a report thereon. This will be done during the coming winter.

26 PART III The main portion of the past season's work was on the surface geology of sheet No. 1 N.E., that is in the counties of King's, Queen's, Albert and Westmoreland; but unfinished portions of the districts examined during the two previous seasons were also studied. Much difficulty was experienced in determining the mode of glaciation and the distribution of the superficial deposits in the hilly country lying to the south of the great Carboniferous overlap. In the cleared and settled parts, however, careful investigations have been made in regard to strize, boulder-clay, stratified deposits, alluviums, agricultural character of the soil, forest covering, &c., and the results obtained will, it is hoped, serve to elucidate, in some degree, the problems

which perplex students of surface geology.

On 2nd of July Mr. Chalmers engaged Mr. W. J. Wilson, of St. John, to examine and map, under his direction, the southern part of Queen's county, included in sheet No. 1 N.E. Mr. Wilson continued this work till the 9th of August, and showed himself competent to perform the duty assigned him in a satisfactory manner. Mr. Chalmers further reports as follows: "The glaciation of the eastern part of the area embraced in \(\frac{1}{4}\)-sheet 1 N.E., in which lies the north-eastern extension of the ridge or plateau bordering the Bay of Fundy, was investigated with some care, and facts of much interest discovered. This ridge forms a prominent feature in the landscape, being higher than any part of the country, except the north-western highlands or the Gaspé peninsula. Here, therefore, we might naturally expect to find traces of a continental glacier, if any such ever swept over the eastern part of New Brunswick. None were observed, however; on the contrary, great masses of decayed rock in situ encumber its northern and north-western flanks, while along the valleys of rivers descending from it northwardly into the Petitcodiac striæ were found clearly indicating northerly ice movements. Along the Petitcodiac valley, however, which lies below the 200 feet contour line, striæ were seen to follow its course, showing ice movements in an easterly direction. It is evident that local glaciers and icebergs were amply sufficient to produce all these phenomena.

On the summit of the Bay of Fundy ridge or plateau referred to, local areas which served as gathering grounds for glaciers, sent some of these off towards the Bay of Fundy. A large number of facts relating to the glaciation of the district will

be given in the detailed report.

Excellent opportunities for studying boulder distribution are afforded in eastern and southern New Brunswick. One fact worth noting here is that while boulders from the Bay of Fundy pre-Cambrian ridge are found to have been transported northwardly over the low Carboniferous area, none from the latter rocks were found upon the ridge itself. The older ridges of crystalline rocks have, it would seem, been the centres of boulder distribution, and have sent off waste material in all directions around them. Along coasts and areas submerged during the Post-Tertiary period various distributing agencies seem to have been in active operation, rendering boul-

der distribution on these lower levels a somewhat complete problem.

Till or boulder-clay is found wherever there are traces of glacier or iceberg action, and in some places where there are none. My study of the boulder-clays in New Brunswick has led me to the conclusion that they have formed in two or three different ways, viz.:—(1) by land ice or icebergs, these two producing similar deposits; and (2) by the kneading and compacting of ordinary decayed rock meterial in situ by ice passing over it, or simply by the weight of ice and snow acting upon it, while saturated with water; and, in some cases, in their beds, by a mechanical assorting of the clays, gravels, &c., somewhat in the manner that hardpan is produced. The first two usually contain transported and glaciated materials; the last do not, except on the surface. Another kind of deposit which resembles boulder-clay, but which occurs in limited quantities, is that of landslips. These landslips may sometimes have produced striæ. It is found along the base of cliffs and of mountains, &c., and is without glaciated boulders.

The above classification may render some slight change in the definition of the terms till or boulder-clay necessary. Full details respecting them will be given in

my forthcoming report.

The examination and study of the other superficial deposits in the area under consideration have revealed no new facts. I shall now, therefore, briefly refer to the materials of economic importance observed in connection with the work during the past season.

Peat bogs are numerous and well developed near the bay of Fundy coast and in many places inland. Those near Musquash, Popelogan and Digdeguash Rivers are quite extensive. Lying just east of Musquash Harbor is a bog covering an area of 450 acres and 20 feet in depth, which is now about to be utilized in the preparation of "moss litter." This is an article used in stables as bedding for horses. Owners of studs in the United States have for some time been looking for a material for this purpose sufficiently light and porous to be an absorbant of the liquids, moisture and ammonia which collect in stables, and which could afterwards be used as a fertilizer in gardens, &c. A few capitalists from St. John, St. Stephen and other places have formed what is known as the Musquash Moss Litter Company, and having purchased this bog, are now erecting buildings and machinery there for the preparation of this article, which, it is claimed, is well adapted for the object intended, and as good as the imported European moss litter. The kind of peat used is not the upper or living peat, nor the deep-lying, decayed material, but that between the two, in which the mosses and rootlets are only partially decomposed, and which has the fibres nearly whole. The chief process in its preparation is depriving it of the water, of which it contains 90 to 95 per cent. This is done by a plunger, by pressing it between rollers and by evaporation. When thoroughly dried it is packed in bales for shipment, and is worth \$15 to \$17 per ton in the principal United States cities. This new enterprise promises to be successful.

Brine springs are found at Sussex, at Salina, on Salt Springs Creek, and at Bennett's Brook, near Peticodiac. Five or six hundred bushels of salt per annum are manufactured at Sussex. This is all consumed locally, and used chiefly for table and dairy purposes. Several springs occur near the site of these salt works. A boring 125 feet deep was recently sunk at one of these springs—13 feet of it through surface deposits and 112 feet in rock. The object was to find the salt rock, but nothing of the kind was met with. The strength of the brine, I was informed, increased slightly till the solid rock was reached; beyond that it did not perceptibly change. At Salina an attempt was made some years ago to manufacture salt from the brine of the surface springs there, but was discontinued. Possibly a series of borings might result in improving the quality of the brine, but none have yet been made. At Bennett's Brook nothing has been done to utilize the springs there, to my knowledge. In all these places the brine contains a considerable percentage of sulphate of lime or gypsum. There appears to be less, however, in that of the Sussex springs than at Salina or Bennett's Brook. The salt manufactured at the Sussex works is said to be of a superior quality.

Medicinal springs are met with at Apohaqui and at Havelock Corner, King's county. The one at the former place, which is situated about a mile from Apohaqui station, Intercolonial Railway, has attained quite a reputation for its herapeutic properties. It is an alkaline water, and is said by chemists to resemble the famous Vichy water, and also to be a natural emulsifier. Favorable mention has been made of it in the Canada Medical and Surgical Journal, and it has been used in the General Public Hospitals of Montreal and St. John, N. B.

The Havelock mineral water has, for some years, had a local reputation as a remedy for certain diseases; and as an extensive deposit of mud surrounds the spring, it might be utilized for the establishment of "mud baths," which are said to be beneficial in the treatment of some diseases.

Infusorial earth has been reported as occurring at Fitzgerald Lake, St. John county, and at Pollett River and Pleasant Lakes, King's county. The deposits at the two first mentioned places are quite large. Mr. Wm. Murdock, C. E., of St. John, who owns the one at Fitzgerald Lake, is endeavoring to introduce this material into use in some ways. Clays and sands suitable for brick-making, &c., occur in [PART III]

many parts of the district. Near Sussex, and at St. John and Fairville, there are

large brick-making establishments.

On the 21st of October Mr. Swinyard left for Ottawa. Afterwards I visited the ship railway now under construction across the Isthmus of Chignecto. In an excavation which is being made for docks in the salt marsh at its western end, the following series of deposits is disclosed:—(1) Marsh mud, 5 to 10 feet; (2) finegrained, stratified blue clay, holding numerous shells of Mua arenaria and Macoma fusca—thickness, from a few inches at one end to five to eight feet at the other; (3) peat or humus, sixto fifteen inches thick, containing roots and stumps of small trees, chiefly hacmatae, and in some places portions of the stems. This peat or forest bed evidently grew on a sloping bank at the border of a lagoon or quietinlet. The owestl part of it is now twenty feet or upwards below the level of high tides in the Bay of Fundy.

At Aulac station, Intercolonial Railway, which is on the great Tantramar salt marsh, a boring 305 feet deep, was put down under the direction of P. S. Archibald, chief engineer, Intercolonial Railway. This boring shows likewise (1) marsh mud, eighty feet; (2) "turf and bog;" (3) red clay, &c. These facts clearly establish the conclusion that a subsidence has taken place here since the growth of the peat beds, and confirms the observations made previously by Sir J. W. Dawson, (Acadian

Geology, 3rd ed., p. 13).

Later on a cursory examination of the surface geology of the northern and western ports of Nova Scotia was made. In Pictou county striæ and transported boulders, showing northerly ice-movements, were observed. In Annapolis valley boulders derived from the South Mountain were also found strewn about in profusion. Numerous facts having a close relation to the surface geology of southern New Brunswick were noted.

Field work was continued until the 14th of December. Cost of season's explorations, \$997.75.

The district examined by Mr. Fletcher in Nova Scotia in 1889 comprises a portion of Pictou and Colchester counties, lying between the Gulf of St. Lawrence west of Pictou harbor, and Cobequid Basin, including the valleys of Toney, John, Waugh and French Rivers, on the north side of the Cobequid Hills, and of the Salmon. North, Chiganoise and Debert Rivers on the south side of these hills. northern part of the district is being opened up by the short line of railway from Oxford to Pictou, now nearly completed, which will pass near the celebrated red freestone quarries of River John, Tatamagouche and Toney Rivers.

Along the north side of the hills, as far west as Waugh River, runs a belt of red conglomerate, described as Permian in previous reports, of the same geological age as that of New Glasgow, interstratified with red grit, sandstone and marl, and overlaid by grey sandstones, like those of Pictou and the West River. These are succeeded in turn by brownish and red sandstones and marls, with one or two thin layers of limestone. They form the rich agricultural country which borders the Gulf shore. All are affected by important east and west faults. Associated with the conglomerate, and also occasionally with the grey sandstones are veins of albertite and of baryte. The veins of albertite are not, however, confined to these rocks. Hitherto no veins of greater thickness than four inches have been found, and these are lenticular and irregular. Barytes was quarried to some extent in the grey sandstone of Hodson, near River John, some years ago, but at present none of the known deposits are being worked, none of them perhaps warranting a large expenditure for exploitation. Small seams of bituminous coal have been discovered in the grey sandstone, but none seem to be persistent.

Reference has often been made to the grey sulphide and carbonate of copper found associated with carbonized plants in calcareous, concretionary beds among the grey sandstones of this formation, or as nodules in red and green marls. In many places, but particularly on Waugh River and French River, these ores have been

largely but not profitably worked.

The rocks of the southern slope of the hills, from Salmon River to Great Village River, near the Londonderry iron mines, consist for the most part of the brick-red crumbly sandstone and conglomerate, called Triassic by Sir J. W. Dawson, underlaid here and there by Carboniferous and probably also by Permian rocks, in some of

which unimportant seams of coal have been discovered.

The structure of the Cobequid Hills is much more varied and interesting. No evidence of the age of the trap, felsite, syenite, diorite and schistose rocks was found on the north side of the hills, where they are immediately overlaid by Permian strata evidently newer; but on the south side and towards Earltown, similar rocks cut Silurian and Devonian in such a manner as to make it appear probable that they are igneous and younger than these sedimentary strata. The Silurian is confined to small areas at and near Earltown, in Waugh River, and at Wentworth railway station, the principal sedimentary rocks being an extension of the Devonian slates of Mount Tom and of Waters' Hill, and McCulloch Brook, at the north-western corner of the Pictou coal field, similar to a group containing iron ores in Guysboro', Antigonish and Pictou counties, including the iron ore belt of the Londonderry mines, in the slate of which, on the I. C. R., and many of the brooks of the neighborhood, many well preserved remains of plants have been discovered.

The small coal seams of West River, Riversdale and Kemptown, with their associated slaty shales and quartzites, have been traced in the North, Chiganoise and Debert Rivers, where much money has been spent in attempts to find them in workable shape. In every case in which the including strata have been followed to contact with the syenite and diorite of the hills, they have been found greatly altered.

Towards the close of the season, several weeks were spent in a further examination of the Pictou coal field, in which recent mining operations, borings made by Mr. R. P. Fraser, of Pictou, with the diamond drill for certain mining companies, and geological explorations made by the late Mr. Jesse Hoyt, and Mr. H. S. Poole for the Acadia Coal Mining Company, have added many facts necessary for understanding the complicated structure of this field. A visit was also made to Kennetcook Corner, where coal has been reported to occur; but the seams are all apparently too small to be workable, and the basin in which they lie, between lower Carboniferous limestone

and gypsum, is very narrow.

During the past summer two companies began to work the iron ores of the East River of Pictou. One of these, under the management of Mr. H. V. Leslie, of New York, has begun the construction of a railway from Sunnybrae to New Glasgow, which is projected to extend to the harbor of Liscomb, on the Atlantic coast. The second company, under the management of Mr. Graham Fraser, of New Glasgow, has also surveyed a line of railway from the iron mines to the I. C. R., near the fork of the East River, and vigorously pushed the development of the mining areas. The mining has been done on a large vein of excellent limonite, which follows the contact of Silurian and Cambro-silurian rocks with Carboniferous limestone in the valley of East River. The same company is also mining a vein of excellent red hematite at Newton Mills, Stewiacke, and another near Maitland. Other discoveries of red hematite have lately been made in the hills at the head of French and Sutherland Rivers, in Pictou county. Mr. Fletcher was assisted during the summer by Mr. M. H. McLeod, and for nearly three months by Mr. Archibald Cameron. Field work was begun about the end of May and continued to the middle of December. Mr. Faribault continued his explorations on the gold-bearing series of rocks in Colchester and Halifax counties, and reports as follows:-

"The district surveyed lies westward of that surveyed in 1884 and northward of that surveyed in 1887 and 1888. It comprises, in Halifax county, the whole of the basin watered by the Musquodoboit River and the head waters of the West Sheet Harbor, Tangier, Ship Harbor and Gay's River; and, in Colchester county, the south branch and the south-eastern tributaries of the Stewiacke River and the St.

Andrew's River.

Narrow basins of lower Carboniferous rocks extend along the Musquodoboit, Gay's, Stewiacke and St. Andrew's Rivers, containing large deposits of gypsum and 30

limestone, and lie unconformably upon the sharply folded auriferous rocks of the lower Cambrian. The folding of these latter rocks, and more especially the anticlinal folds, were carefully examined and traced out, on account of their close relation to the richest auriferous belts. The Caribou and Moose River gold mining districts are situated in the region examined. They are now extensively worked with steady good returns. Auriferous quartz veins have also been opened up on Fish River, Gay's River and the south branch of the Stewiacke River, but none of them have so far been worked to any extent."

Mr. Faribault was assisted, as in the previous year, by Messrs. A. Cameron, J.

McG. Cruikshank and P. A. Faribault.

An area of some 350 square miles has been surveyed. The season's work extended from the 16th of May to the 1st of October.

Cost of season's work by Messrs. Fletcher and Faribault, about \$2,000.

MINING AND MINERAL STATISTICS.

Mr. Brumell was occupied during the winter and spring in preparing the report on the Mining and Mineral Statistics of Canada for 1888. About 3,000 circulars were sent out, and were followed by about two thousand five hundred letters asking for the returns. Fifteen hundred were received.

The work was under the supervision of Mr. E. Coste, M. E., till March, when he obtained, leave and eventually resigned his position. A summary statement of the totals of the mineral production for 1888 was published in March, and the detailed report, completed by Mr. Brumell, was published and issued in October, and forms Part S, Vol. IV., of the Annual Report of the Survey.

Of the past summer's work, Mr. Brumell reports as follows:-

"I left Ottawa on 27th August last to visit the various places in southern Ontario, where boring operations were in progress. The counties visited were Welland, Lambton and Essex, in all of which drilling is being actively carried on.

In Welland county a company has been in operation since the month of June last, and had, at the time of my visit, completed one well, which attained a depth of 846 feet, and had begun a second. From the first well a flow of gas of 1,000,000 cubic feet had been obtained, though subsequent to my visit this well was shot, and the flow increased to about 1,750,000 cubic feet.

An accurate log and specimens were obtained of this well, and also of others in the Niagara Peninsula. In August last eight wells had been completed in the Peninsula. Of these, three are at Port Colborne, two at Niagara Falls South, and one each at Thorold, and at St. Catharines and in the Township of Bertie. A very small flow of gas was obtained in the well at St. Catharines and at Thorold, while from the wells of Port Colborne there is a total production of about 50,000 cubic feet per diem. It is understood that the burning spring at Niagara Falls is being supplied

with gas from one of the wells recently sunk at that place.

At Bertie and Port Colborne the gas was obtained from the upper beds of the Medina formation, which is reached at these places at a depth of 735 and 730 feet respectively. At Niagara Falls the gas comes from a depth of 201 feet, at which depth the bore is in the lower beds of the Niagara shales, while at Thorold and St. Catharines the flow is obtained from the lower part of the Trenton series, in the former place at a depth of 2,394, feet or 489 feet in the Trenton limestone, and at the latter in a sandstone at a depth of 2,185 feet, or 13 feet below the limestones of the Trenton series.

Two more wells have been drilled in the townships of Birtie and Humberstone, to a depth of 851 and 836 feet respectively, having a flow of gas of about 500,000 cubic feet per diem each, the flow in both cases being from the Medina sandstone.

In Lambton county the oil fields of Enniskillen township are still being extensively drilled upon. A number of drillers living in Petrolia and Oil Springs were interviewed, and logs and information regarding wells throughout the province were obtained from them.

In Essex county exploration for gas is being continued. It has, however, been obtained in quantity but in one well, namely, "Coste No. 1," which has a daily flow of 10,000,000 cubic feet. This well, drilled to a depth of 1,031 feet, is situated in the township of Gosfield, lot 1, concession 3, eastern division. Wells had recently been completed at and near Kingsville and at Comber, and drilling was, in September, being carried on at Amherstburgh, Essex Centre, Marshfield, Kingsville, Leamington and Blytheswood. The well at Marshfield, being sunk for Messrs. Walker & Sons, of Walkerville, will be watched with considerable interest, as it is the intention of the firm to carry this drilling down as far as the Trenton limestone.

Logs and specimens of drillings were obtained of most of the wells in the county. In order to further work out the underground geology of the province, in connection with the boring operations, elevations were obtained of many of the wells, their relative levels to the nearest railway station being generally obtained. Accur-

ate instrumental measurements were made when necessary.

About 150 logs or records are now on fyle in this office, which number is con-

stantly being supplemented, as operations continue.

Mr. Brumell returned to Ottawa on 3rd October, after having, in addition to the counties named, visited and obtained information in regard to borings at London, Brantford, Hamilton, Toronto and Whitby. Since his return he has been preparing the circulars for the Mining and Mineral Statistics for 1889, and in constructing from the data he obtained during the summer, and from all other available sources, maps and sections on which it is proposed to show the location of the numerous borings that have been made, or are now in progress in Ontario; also, the depth of each boring, and the nature of the strata passed through, and the strata in which gas, oil or water was obtained.

Mr. E. D. Ingall, M. E., Associate of the Royal School of Mines, has now been appointed to succeed Mr. Coste, and will henceforth be in charge of the Mineral Statistics Division, and be assisted by Mr. Brumell.

CHEMISTRY AND MINERALOGY.

The report handed me by Mr. Hoffmann on the work carried on in the Chemical Laboratory also embraces that in connection with the Mineralogical Section of the Museum, to the arrangement of which he has devoted much time and care.

Mr. Hoffmann reports as follows:—

"The work carried out in the Chemical Laboratory during the past year was of an almost exclusively economic character, and embraced—

1. Analyses of coals, lignites, and other fossil fuels.

2. Analyses of iron and copper ores.

- 3. Analyses of limestones and dolomites.
- 4. Analyses of mineral and other waters.

5. Gold and silver assays.

6. Miscellaneous examinations.

The number of mineral specimens received for examination amounted to 472. A large number of these were brought in by visitors desirous of having them identified and obtaining information in regard to their economic value; and this information was communicated either at the time of their calling or, where a more than cursory examination was called for, subsequently by letter. The number of letters written, most of which partook of the nature of reports, amounted to 205.

Mr. E. D. Adams, in the capacity of Assistant Chemist, rendered good service up

to the time of his leaving for field work in July.

Mr. R. A. A. Johnston has, as Junior Assistant Chemist, diligently applied himself to the work entrusted to him. In addition to the gold and silver assays, he has, as opportunity afforded, made further analyses of limestones and dolomites, besides carrying out a great many minor examinations.

In the Mineralogical Section of the Museum a large amount of work has been carried out in the way of labelling and re-adjusting specimens. The manuscript catalogue of the scientifically arranged collection of minerals is, as stated in my last [PART III]

report, completed, and that of the economic collection of rocks and minerals is now almost so. Apart from the replacement of numerous specimens, already represented, by more typical ones, the collection has been augmented by the addition of some 140 others, including the following presentations:—

Allan, W. A., Ottawa, O .:-

Hematite, from the west half of lot 28, range 5, of the township of Oso, Addington county, O.

Allison, J. F., per Dr. G. M. Dawson:

Chalcopyrite, from the British Columbia Copper Company's mine, South Similtamen River, B. C.

Bedard, —, per Dr. Ells :-

Roofing slate, from Bedard's quarry, lot 5, range XV, of the township of Cleveland, Richmond County, Q.

Boulanger, Horace, J. P. for Keewatin and Chief Factor in charge at Norway
House, per Mr. J. B. Tyrrell:—
Serpentine, from the extreme north end of Reindeer Lake, N.W.T.

Brock, S. R., Alwyn, Ottawa county, Q.:—

Phlogopite, from the township of Alwyn, Ottawa county, Q.

Brown, John R., St. Alice Hotel, Harrison Hot Springs, B. C .:-

Iron ochre, from Silver Creek, Harrison Lake, twenty miles north of Harrison Hot Springs, B. C.

Breels, Joseph, East Templeton, Ottawa county, Q.:—
Fluorite, from lot 15, range 1, of West Templeton, Ottawa county, Q.

Chambers, R. E., Truro, N. S.:— Limonite, three miles from Brookfield station, Colchester county, N. S.

Chapman, C., Prescott, O.:-

Huronian quartzite, three polished slabs of, from the north shore of St. Joseph Island, Lake Huron, O.

Dickson, W. H. Ottawa, O.:-

Apatite and graphite, from lot 28, range VI, of the township of Buckingham, Ottawa county, Q.

Furlonge, W. H., Port Arthur, O .:-

Native silver, from Silver Mountain mine, township of Lybster, district of Thunder Bay, O.

Argentite, from the Beaver mine, Rabbit Mountain, district of Thunder Bay, O.

Marion, Rev. Father, Douglas, Renfrew county, O .:-

Magnetite, from lot 24, range II, of the township of Stafford, Renfrew County, O.

McKay, J. W., Kamloops, B. C .:-

Molybdenite, from near the head waters of the South Fork of Spuzzum Creek, Fraser River, B.C.

Poole, H. S., Stellarton, N. S.:-

Altered bitumen, from the falls measures, immediately overlying the Acadia seam at Westville, Pictou county, N.S.

Russell, A. L., Port Arthur, O .:-

Native silver (two specimens) from Silver Mountain vein, mineral location range 56, township of Lybster, district of Thunder Bay, O.

Native silver with sphalerite from Silver Hill, near Silver Mountain, district of Thunder Bay, O.

Argentite, from Silver Mountain vein, mineral location range 56, township of Lybster, district of Thunder Bay, O.

PART HIS

Argentite, from Rabbit Mountain mine, township of Gillies, district of Thunder Bay, O.

Saunders, Wm., Ottawa, O.:-

Altered bitumen, from Queen Charlotte Island, B.C.

Stewart, G., West River, Sheet Harbor, N. S.:-

Native gold in quartz, from the Killog mine, Sheet Harbor, Halifax county, N.S.

Trethewy, T. H., Port Arthur, O.:-

Native silver (two specimens) from Silver Mountain, district of Thunder Bay, O.

Wertheim, Ed., Desjardins P.O., Q.;-

Asbestus (chrysotile), from south half of lots 27 and 28, range XII, of the township of Coleraine, Megantic County, Q.

Samples of mill-board, steam-packing, &c., manufactured from the asbestus of this locality.

Wilson, —, per Dr. G. M. Dawson:— Magnetite, Rivers Inlet, B. C.

Mr. R. L. Broadbent has rendered most efficient service in the mineralogical section of the Museum. Indeed, but for the interest and assiduity he has displayed in the work, the progress achieved could hardly have been hoped for. In the early part of the year, Mr. C. W. Willimott was occupied in making up collections of minerals and rocks for various institutions. Of such collections, the following have been sent out in the course of the year:—

	Specimen
To W. G. Kidd, Public School Inspector, Kingston	13
Public School, Upper Sumas, B.C	
Bishop's College, Lennoxville, Q. (Supplementary)	32
Manitoba College, Winnipeg (supplementary)	
Town Council, Sault Ste. Marie, O	112
Bourget College, Rigaud, Q. (Supplementary)	
High School, New Westminster, B. C	
Iberville Convent, Iberville, Q	
Mrs. A. Frechette, Ottawa, O., (fragments)	
Rev. D. Borthwick	

During the summer he visited the townships of Leeds, Garthby, South Ham, Grenville, and several of the townships in Ottawa county, in the province of Quebec. A large quantity of material was obtained for the purpose of making up collections for educational purposes, as also numerous interesting specimens for the Museum.

PALÆONTOLOGY AND ZOOLOGY.

On these divisions of the Survey's field of operations Mr. Whiteaves reports as follows:—

Advance sheets of the letter press of pages 151-184 of the second part of "Contributions to Canadian Palæontology" were printed and distributed in July, 1889. A similar edition of pages 185-196 of the same publication was printed and distributed in August. The manuscript of the pages last mentioned, which consists of a descriptive report on the fossils of the Niobrara-Benton formation of the Duck and Riding Mountain district in Manitoba, for the most part collected by Mr. J. B. Tyrrell, in 1887, was all written during the present year. The entire part, which consists of 107 pages large octavo, illustrated by fifteen full-page lithographic plates, was issued in August, 1889. About one half of the letter press of the third part of the "Contributions to Canadian Palæontology" has been written. This part is intended to contain a descriptive report on the fossils collected by Mr. McConnell 34

in 1888 and 1889, from the Devonian rocks at several localities in the Mackenzie River basin. A paper entitled "Descriptions of Eight new Species of Fossils from the Cambro-silurian rocks of Manitoba," has been written for the transactions of the Royal Society of Canada for 1889. Three hundred advance copies of this paper which consists of nine pages quarto of letter press, illustrated by six full-page plates, were printed and distributed in November. A preliminary examination has been made of a rather large series of fossils collected by Mr. J. B. Tyrrell, during the summer of 1889, from the Cambro-silurian rocks at Swampy, Big and Deer Islands, in Lake Winnipeg, at Grindstone Point, on the west side of that lake, and at the mouth of the Little Saskatchewan; also of a number of fossils recently obtained by Mr. R. G. McConnell, from the Cretaceous rocks of the Peace River and its tributaries, Lesser Slave Lake and the Athabasca River. A short visit was made to Thetford, Ont., in September and some fossils of interest were collected from the Devonian shales and limestones of that neighborhood.

In the upper flat of the Museum a new upright glass case, seven feet five inches high, six feet five inches long, and two feet nine inches broad, has been constructed for the reception of the fine collection of Dinosaurian and Mammalian remains recently made by Mr. Weston, from the Laramie and Tertiary formations at various localities in the North-West Territory, and all the specimens in this case have been provisionally labelled. In the same flat a small glass case has been made, in which are now exhibited a named series of the fossil plants collected by Mr. McConnell in 1888, from the Tertiary rocks of the Mackenzie River, 20 miles above Bear River, recently

described by Sir William Dawson.

In the Department of Zoology a large collection of the mammalia birds, reptiles, &c., of British Columbia, has been received from Professor Macoun. Seventy-seven additional specimens of fifty-nine species of Canadian birds, and nineteen specimens of sixteen species of Canadian mammals, most of which were collected by Professor Macoun, have been skilfully mounted by Mr. T. Herring during the year. These have been carefully labelled and arranged in their proper places in the zoological cases. Two large upright glass cases (each 7 feet high, 6 feet 5 inches long, and 3 feet 6 inches broad, with plate glass shelves) have also been constructed for this flat of the Museum. One of these is now filled with a collection of the mammalia of Hudson's Bay and Strait (including a pure albino wolf from that district, which has recently been mounted), and the other with a choice series of seals from the Atlantic and Pacific coasts of Canada, and with a fine head of the walrus. The specimens in each of these cases have been re-labelled and re-arranged.

The number of official letters received during the year is 330, and the number

written 283.

From the 1st of January to the end of June Mr. T. C. Weston's time has been employed in museum work, in the sections devoted to palæontology and ethnology. Many new specimens have been added to some of the fossil cases, and a large number of labels written. Numerous additional specimens, also, have been placed on exhibition in the room devoted to ethnology, among which are about seventy implements or other objects of Indian manufacture, recently collected for the survey by Dr. Franz Boas, in British Columbia. On the 1st of June Mr. Weston left Ottawa for the Red Deer River, N. W. T. From the Laramie sandstones near Calgary some fine specimens of fossil plants were obtained, which have since been identified by Sir William Dawson, and are now labelled and exhibited in their proper place in the Museum. The Red Deer River, eight miles below the crossing of the Calgary and Edmonton road, was reached on the 13th of June. Four days were spent preparing boats for the journey down the river, and in collecting fossil plants from the Laramie sandstones and argillites of the Blind Man River. On the 17th of June the journey down the Red Deer was commenced, and in a short time the great coal seams in range 24, township 28, were reached. The confluence of the Red Deer with the South Saskatchewan was reached on the 14th of July. Between this point and Tail Creek, a distance of about 250 miles, the rocks were examined in a number of places, and a fine series of vertebrate remains was obtained from the Laramie and

Belly River deposits. Among these are the right and left side of the jaw of a Deinosaur (probably Lælaps) vertebræ, limb bones, teeth and claw cores. The Battleford and Swift Current crossing was reached on the 19th of July. Ten miles below this, at the mouth of Swift Current, there is a large exposure of the Pierre, from which a small but interesting collection of fossil shells and reptilian remains was obtained. After this the White River beds of the Cypress Hills were re-visited and a few fine fossil bones were collected, among which is a large portion of the right ramus of the lower jaw, apparently of an Elotherium. On the return journey to Ottawa, a few days were spent searching for fossils among the Animikie rocks of Port Arthur and Rossport, but none were found. Ottawa was reached on the 21st of August. From 2nd September to the 16th several fossiliferous localities in the Eastern Townships of the province of Quebec were examined, various specimens of interest (including examples of Salterella from two new localities) were obtained for the Museum. The remainder of the year has been occupied by Mr. Weston in preparing, labelling and arranging for exhibition in the Museum the collections received during the summer.

With the exception of two months spent in Europe, on leave of absence, a considerable portion of Mr. H. M. Ami's time has been occupied in the examination of numerous collections of fossils recently made by members of the staff at various localities in the provinces of Quebec and New Brunswick. Separate lists of the species from each locality in the province of Quebec have been prepared by Mr. Ami, which have been incorporated into Dr. R. W. Ells' second report on the geology of a portion of that province, and a systematic list of the whole, by Mr. Ami, has been printed as a supplement to that report. Similar lists of fossils, collected at various places in northern New Brunswick and adjacent areas in Quebec and Maine, have also been made by Mr. Ami, which have since been published in Prof. L. W. Bailey and Mr. McInnes' report on the geology of that region. A paper "On a Species of Goniograptus from the Levis Formation, at Levis, P. Q.," written by Mr. Ami, has been published in the seventh number of the third volume of the "Canadian Record of Science," and another paper, consisting of additional notes on the same species, has been published in the eighth number of that volume. These papers are illustrated by an octavo plate, skilfully executed by Mr. L. M. Lambe. Some progress has been made in the manuscript of a report on the fossils contained in the Cambro-silurian exposures and outliers in Central Ontario along the line of contact with the Laurentian area to the north. Labels for the species of fossils enumerated or described in recent paleontological publications by Mr. Whiteaves, Prof. T. Rupert Jones, Dr. G. J. Hinde and Mr. E. O. Ulrich, and for other specimens mostly of recent addition to the Museum, have been prepared for the printer by Mr. Ami. By permission of the Director, and on special application, the types of a few Canadian species and some other specimens have been sent for examination to Professors James Hall, T. Rupert Jones and H. A. Nicholson, to Dr. G. J. Hinde and Mr. C. D. Walcott, but all of these specimens have since been returned. Named sets of duplicate fossils are being made up by Mr. Am for distribution to educational and other public institutions in Canada. One of these sets has been despatched to the Historical and Scientific Society of Manitoba, at Winnipeg, and it is hoped that six similar ones will be distributed at an early date.

In the paleontological work of the office Mr. L. M. Lambe, the artist to the Survey, has also rendered most efficient service. All the drawings required for the illustration of the paleontological publications issued by the Survey during the year have been made by him and he has either effected or superintended their reproduction in a most satisfactory way. He has also made a number of drawings of fossils, which are as yet unpublished, and all the figures which have been used to illustrate Sir William Dawson's paper on the fossil plants collected by Mr. McConnell in the Mackenzie River basin, published in the transactions of the "Royal Society of Canada" for 1889, are from his skilful pencil. In addition to this, Mr. Lambe has materially helped in the elucidation of the characters and specific relations of the standard specific relations of the

tions of many of the fossils which have been entrusted to him to draw.

The following collections have been received during the year from members of the staff:—

Dr. Selwyn:-

Fifteen specimens of fossils from the Cambrian and Cambro-silurian rocks of the Strait of Belle Isle and Newfoundland.

Dr. G. M. Dawson:-

About forty fossils from the southern part of the interior of British Columbia. Also a few skins of small mammals and birds.

J. F. Whiteaves:-

About 100 specimens of fossils from the Hamilton shales at and near Thetford, Ont.

Prof. Macoun:-

Skins of 358 birds and seventy three mammals from British Columbia; also a collection of reptiles, butterflies, shells, &c., from the same province.

Dr. R. W. Ells:-

About 100 slabs, containing graptolites, from the Cambro-silurian rocks near Lake Memphremagog, P.Q.

Prof. L. W. Bailey:-

Fifteen specimens of Obolus pulcher, Matthew, from the lower Cambrian rocks at Caton's Island, N.B.

J. B. Tyrrell:-

About 5,000 fossils from the Cambro-silurian and Devonian rocks at various localities on Lakes Winnipeg and Winnipegosis.

R. G. McConnell:

Forty specimens of fossils from the Devonian rocks of the Peace River and 200 from the Cretaceous rocks of the Peace and Athabasca Rivers.

T. C. Weston:-

Fifty specimens of fossils from the Quebec group of the province of Quebec.

Thirty specimens of vertebrate and 300 of invertebrate fossils from the
Cretaceous rocks of the South Saskatchewan. 200 specimens of invertebrate and the same number of vertebrate fossils, including a fine
series of Dinosaurian remains, from the Laramie of the Red Deer
River, N.W.T. Seventy specimens of fossil plants from the Blind Man
River, N.W.T.

W. McInnes:-

About 100 fossils from Tuladi Falls, Rimouski River, and a few from Notre Dame du Portage, P.Q.

H. M. Ami :--

A number of fossils from the Trenton and other formations near Ottawa; also arrow heads and fragments of pottery from near Casselman, Ont.

The additions to the paleontological, zoological and ethnological departments of the Museum, by presentation, exchange or purchase, are as under:—

By presentation:

G. R. White, Ottawa:—
Skin of a female Ruddy Duck (*Erismatura rubida*) from the Ottawa River.

Rev. G. W. Taylor, Stewarton, Ont .:-

Eggs of twenty four species of Canadian birds, mostly from British Columbia. One specimen of a crab (*Echidnocerus cibarius*) from Vancouver Island.

James Fletcher, Ottawa:-

Eggs of thirty two species of Canadian birds, and photograph of egg of the Great Auk (Alca impennis).

W. A. D. Lees, Ottawa:—

Eggs of nineteen species of Canadian birds. Specimen, in the flesh, of the Mole Shrew (Blarina brevicauda), from near Ottawa.

F. E. Trudeau, Ottawa:-

Mounted specimen of the American Raven (Corvus corax sinuatus) shot at Lake Edward, P.Q.

James Davidson, West Templeton, P.Q.:-

Specimen, in the flesh, of an Ermine (Putorius ermineus.)

Philip Cox. Newcastle, N.B.:—

Pair of the Hudsonian Chickadee (*Parus Hudsonicas*), from the Miramichi River, N.B.

Joseph Edwards, Ottawa:-

Specimen, in the flesh, of the Northern Hairy Woodpecker (*Dryobates villosus leucomelas*), from Blue Point, Lake St. John. Specimen of the Hoary Bat (*Atalapha cinerea*), from the Rideau River, in the flesh. A Brown Creeper (*Certhia familiaris Americana*.) A male House Wren (*Troglody tes &don*), both in the flesh; also two eggs of the Horned Lark (*Otocoris alpestris*), and two of the Flicker (*Colaptes auratus*), all from near Ottawa.

The U. S. Geological Survey (per C. D. Walcott):—

Fourteen species of fossils from the Lower Cambrian rocks of Newfoundland, &c.

J. Heron, Billing's Bridge:-

A female Woodchuck (Arctomys monax), in the flesh.

J. H. Bartlett, Ottawa -

Female Jumping Mouse (Zapus Hudsonius) from Billing's Bridge, in the flesh.

W. C. Bedingfield, Ottawa:—

Nest of the Ruby Throated Hummingbird (Trochilus colubris), from Kemptville.

H. M. Ami, Ottawa:—

One Brown Bat (Scotophilus fuscus), in the flesh.

D. Herring, Toronto .-

Skin, since mounted, of a female Buffle Head (Charitonetta albeola); do of a female Green-winged Teal (Anas carolinensis); do of a female Blue-winged Teal (Anas discors), and do of a female Black-throated Green Warbler (Den droica virens); all from near Toronto.

S. Herring, Ottawa:—

Pair of the Whip-poor Will (Antrostomus vociferus), from near Toronto.

W. McRae, Twin Glen, Carleton Co., Ont. .—

Rattle of a large Rattle Snake from Arkansas.

Dr. C. A. White, Washington, D.C.:-

Three specimens of Astarte Packardi, White, from the Sauranodon beds ("Jurassic") at Aurora, Wyoming.

Alex. Jacques, Ottawa:-

Piece of oak of the "Royal Savage," a culverin and musketoon ball, each of which were taken out of a beam on the church at Plattsburgh, and pieces of Indian pottery found near that city.

Piece of sound wood found 116 feet below the surface of the ground at

Polk Co., Indiana.

W. J. Baylay, Ottawa:—

Female Sharp-shinned Hawk (Accipiter velox) shot at Aylmer, P.Q., in the flesh.

E. G. White, Ottawa:—

Specimen of the American Crow (Corvus Americanus), in the flesh.

R. A. A. Johnston, Ottawa:-

Albino Chipmunk (Tamias striatus), from Uxbridge, Ont.,—mounted.

Sir William Dawson, Montreal:-

Sixteen specimens of ten new species of fossil sponges, one example of *Butotrephis pergracilis*, Dawson, and nine of *Linnarssonia pretiosa*, from Metis, P.Q.

Prof. R. J. Hill, Austin, Texas:-

Thirty-one specimens of *Terebratula Wacoensis*, Ræmer, from the Washita limestone west of Austin, Texas.

Rev. Hector Currie, Thedford, Ont .: -

Twelve specimens of fossils from the Hamilton shales near Thetford.

Rev. W. H. Barris, Davenport, Iowa:

One specimen each of three rare species of fossils from the Hamilton formation near Alpena, Michigan.

R. R. Rowley, Curryville, Pike Co., Missouri:-

One hundred and three specimens of twenty-four species of fossils from the Burlington and Kinderhook formations at Pike Co., Miss.

By Exchange.

From the Manitoba Historical and Scientific Society, Winnipeg, per C. W. Bell (President):—

Four fossils from the Cambro-silurian rocks of East Selkirk and Stony Moun-

tain, and two from the Cretaceous rocks of the N. W. T.

From Prof. T. F. Calvin, Iowa City:-

Thirty-two species of fossils from the Devonian rocks of Iowa and Missouri, one from the Niagara limestone of Iowa, two from the Hamilton shales of Ontario, and six from the Cretaceous of Montana.

By Purchase.

Semi-albino Red-tailed Hawk (Buteo borealis); semi-albino Song Sparrow (Melospoza fasciata); male Grasshopper Sparrow (Ammodramus savannarum passerinus); female Wilson's Warbler (Sylvania pusilla); and albino or nearly albino variety of the Red Squirrel (Sciurus Hudsonius); all from Hyde Park Corners, Ont.

Albino American Crow (Corvus Americanus), shot near Whitby, Ont.

Remarkable colour variety of the American Robin (Merula migratoria), shot near Ottawa.

Male Murre (Uria troile), shot near Wakefield, P.Q.

Male Coot (Fulica Americana), shot near Toronto.

Sixty-four specimens of fossils from the Silurian and Devonian rocks of western Ontario.

Skeleton of a large Snapping Turtle (Chelydra serpentina), obtained at Markham, Ont., and prepared by M. Jules Bailly, Montreal.

In the section of entomology Mr. Fletcher reports that the collections have been regularily examined since they have been in his charge, and are now in a good state of preservation, no instance of injury by insects, mould or accident having occurred.

Mr. Fletcher further reports as follows:—

The collections have been considerably augmented by donations, and by the labours of different members of the staff of the survey, who have brought from distant [PART III] 39

localities a number of insects of rarity and interest, many of which were previously

unrepresented in the cabinets.

Since Mr. Fletcher had charge of the collection, (1887) the following additions. made by members of the staff, have been examined, identified and prepared for the cabinets.

1. By Professor Macoun, at Nipegon, in the Rocky Mountains, in Vancouver

Island, in Prince Edward Island and on the mainland of British Columbia.

2. By Dr. G. M. Dawson, in the Yukon District and in the interior of British Columbia.

3. By Messrs. McConnell and Ogilvie, in the Mackenzie River district.

4. By Mr. Frederick Bell, at Fort Simpson, Mackenzie River, and presented for the museum to Mr. McConnell.

5. By Mr. J. B. Tyrrell, in Manitoba.

6. By Mr. A. P. Low and Mr. J. M. Macoun, at Hudson Bay.

7. By Mr. J. S. Cotter, at Moose Factory, Hudson Bay, and presented to Mr. Low, for the museum.

8. By Mr. T. C. Weston, in the North-West Territory,

Of these collections by far the most important were those made by Professor Macoun, Dr. Dawson and his assistant Mr. McEvoy.

It is true that most of the above mentioned collections consisted largely of specimens in a poor state of preservation; but they included many rare insects, amongst the more important of these are the following:—Oeneis Macouni and Nemeophila Selwyni, both new species discovered by Professor Macoun, at Nepegon, Papilio Machaon var Aliaska, collected by Dr. Dawson on the Liard River, and by Mr. Ogilvie, on the Mackenzie River, Erebia discoidalis collected at Fort Simpson, Mackenzie River, by Mr. Frederick Bell, Colias Nastes brought from Hudson Bay by Mr. Low, Colias Interior from Nipegon and Prince Edward Island, collected by Professor Macoun. A fine series of Lycania Couperi was brought from British Columbia by Dr. Dawson. The specimens in the best preservation were those collected by Mr. James McEvoy and by Messrs. James and William Macoun.

In addition to the above, fine collections of insects belonging to various orders have been presented to the museum, by Mr. T. E. Bean, of Laggan, North-West

Territory.

All the specimens bear dates and localities of their capture, which materially enhance their scientific value.

During the past year several students have examined the collections.

Mr. Fletcher is at present engaged in the preparation of a small collection representing the insects of Canada only, which is for exhibition in open cases in the hall of the museum, and which it is believed will be of interest to visitors.

BOTANY, &c.

During the greater part of the winter Professor Macoun was confined to the house by sickness, but with the aid of his assistant, Mr. J. M. Macoun, the office work was carried on and the specimens that had been collected during the summer were named and mounted. He was also able, before leaving for the field, to make good progress with the catalogue of Canadian birds, referred to in the summary report for 1888.

On the work of the past summer, Professor Macoun reports as follows:—

"On the 30th of March last, accompanied by my assistant, I started for British Columbia, and reached Vancouver, 4th April. Next day we commenced work, and between that date and 12th August, with the aid of one man, we collected birds, mammals, reptiles and insects, and also made a complete collection of the flora from the coast to the Eagle Pass in the Gold Range, a distance of nearly 400 miles on the Canadian Pacific Railway. This being the first season of my duties of naturalist, we devoted much more time to general natural history than to botany. Our season's work ended at Griffin Lake, on Eagle River, after we had lived at an altitude of 7,000 feet for ten days, and collected as much of the mountain flora and fauna as time and means would permit.

The total cost of the exploration was \$1377.21.

"Since our return to Ottawa we have been engaged in sorting, naming and arranging the collections of the season. Satisfactory progress has been made up to 31st December; forty species of plants new to science have been examined and named, and others are still to be determined.

Mr. Pearson's paper on Canadian Liverworts is now passing through the press, and will be followed by Part V. of the Catalogue of Canadian Plants, and by the Catalogue of Canadian Birds, already mentioned. These papers were placed in the hands of the printer last spring, so that they might be in type before my return.

During the past three years I have spent much time in collecting and working up the mosses of the Dominion, and with the aid of European specialists, hope during 1890 to complete the work, and publish a full list of them, forming Part VI. of the Catalogue of Canadian plants.

Many hundred species of plants have been received from Newfoundland, and from every province in the Dominion, for identification, the largest number being

from Newfoundland, Quebec and New Brunswick.

While in British Columbia we collected over 1,400 species of plants, in which were included more than 15,000 specimens; 431 skins of birds and mammals, representing 141 species were secured. Nearly 100 reptiles were collected and preserved in alcohol, and several hundred insects, which are now being determined by specialists.

All work in connection with the herbarium, and the distribution of specimens, has been done by Mr. Jas. M. Macoun. During the past year there were mounted and placed in the herbarium 4,406 sheets of specimens. Of these, 3,592 sheets were of flowering plants, and 814 of cryptogams. Of the flowering plants, 1,987 sheets were Canadian, 1,079 from the United States, 340 from Australia and 186 from Europe. The cryptogams mounted were, with few exceptions, Canadian; 5,960 sheets of specimens were sent to public institutions and to private individuals in exchange for desiderata; 3,593 of flowering plants and 2,167 of cryptogams. 400 sheets to the University of Copenhagen, in exchange for which plants from Greenland were sent; 432 sheets to Columbia College; 445 sheets to the British Museum; 293 to the National Museum at Washington; 200 to Miss R. Marson, Lausanne Switzerland; 200 to J. B. Ellis, Newfield, N. Y.; 100 to Prof. L. M. Underwood, Syracus, N. Y. For all of these, specimens have been sent us in exchange; but besides these several hundred specimens were sent to McGill University, the Department of Public Instruction, Quebee, Harvard University, the California Academy of Sciences, the University of Nebraska, and a set of Canadian grasses to Prof. Scribner, at Knoxville,

Since my last report, 448 letters, of sufficient importance to copy, were written

in connection with our work and about the same number were received."

While the collections of Natural History specimens are rapidly growing larger, and increasing in value, no greater space is being given for their disposal, and while the danger from fire is constantly increasing, the absence of any fire-proof room or building renders it impossible to take any precautions to insure their safety. The room now occupied by Professor Macoun is so crowded with inflammable material that a spark, or the dropping of a match, would in a few moments cause the destruction of specimens of inestimable value, which could never be replaced, and such a fire would endanger the whole building.

MAPS.

Maps in course of preparation and lately published, December, 1899.

Area in Square Miles.

Yukon district, North-West Territory, and adjacent northern part of British

Columbia (3 sheets), published 1889, scale eight miles to one inch....

Index Map of above, published 1889. Report B. 1887-88......

Big River, Great Whale River, &c., E. coast Hudson's Bay (unpublished), scale eight miles to one inch....

British Columbia, part of Southern Interior (Dr. Dawson), in draughtsman's	
hands, scale four miles to one inch	6,400
Kootenay district, British Columbia (Dr. Dawson), in draughtsman's hands,	11 000
scale eight miles to one inch	11,000
Mr. Tyrrell, scale eight miles to one inch	12,000
Northern Manitoba, in draughtsman's hands (Mr. Tyrrell), scale two miles to	12,000
one inch	5,000
Northern Manitoba, in draughtsman's hands (Mr. Lynch), scale eight miles	0,000
to one inch	20,000
Western Ontario, Lake of the Woods (5 sheets), No. 2, ready for engraver	,
aboutly cools two miles to one inch	2,000
Western Ontario, Rainy Lake Map (No. 3), published Report F, 1887-88,	1
scale four miles to one inch	3,45
Western Ontario, Hunter's Island Map (No. 7), in hands of draughtsman,	4 4 2
scale four miles to one inch	1,45
Ontario, Sheet 130 (Sudbury Mining District), Dr. Bell, in hands of draughts-	3,45
man, scale four miles to one inch	3,45
Ontario, General Map (in progress), scale four miles to one inch	0,40
Quebec, N. E., 4 sheet (E. Township map), in hands of draughtsman, scale	
four miles to one inch	4,50
Quebec, S. W., 4 sheet (E. Township map), in hands of draughtsman, scale	
four miles to one inch	4,50
Quebec, N. W., 4 sheet (E. Township map), partly in hands of draughtsman,	
scale four miles to one inch	4,50
Quebec, Lièvre River and Templeton phosphate region (Ottawa county),	
scale forty chains to one inch, Mr. Ingall, ready for engraver in about	26
two months	20
Quebec, New-Brunswick, 4 sheet 17 N. E., published 1887-88, and 4 sheet 18	
S. E., in hands of draughtsman	
miles to one inch	
Nova Scotia, \(\frac{1}{4}\) sheet 4 N. E. and S. E. (Mr. Fletcher), drawn on scale of one	
inch to one mile	
North-West Territory, Mr. McConnell's traverses on the Liard, MacKenzie	

LIBRARY.

and Porcupine Rivers, in the draughtman's hands, scale eight miles to

The Librarian, Dr. Thorburn, reports that from 2nd January to 31st December, 1889, the number of copies of the Geological and Natural History Survey publications, comprising annual reports, parts of same, special reports and maps, was 9,199. Of these, 8,032 were distributed in Canada; the remainder, 1,167, were sent to foreign countries as exchanges to scientific and literary institutions, and to individuals engaged in scientific pursuits.

Every year the list of our exchanges is increasing, so that, as a consequence of this, the operations of the Survey are being more widely known and its publications

more sought after.

There have been received during the year 2,367 publications, including books, transactions, memoirs, periodicals, pamphlets and maps. In addition to these, 51 books were purchased and 38 periodicals were subscribed for, on geological, mineralogical and natural history subjects. For a considerable time past the space allotted to the Library has been found to be altogether insufficient, and, consequently, many of the books, which are frequently required for reference, have had to be stored away in other parts of the building, to the great inconvenience of those wishing to consult them.

42

The number of books bound during the year has been 162.

There were sent out during 1889, by the Librarian, 1,511 letters, and 1,256 were received by him, thus showing the large and increasing interest taken in the work of the Survey.

The number of volumes in the Library is now about 8,000, and of pamphlets

3,000.

The sales of the Survey publications during the year, to 31st December, have amounted to \$2,909.57.

VISITORS.

The number of visitors to the Museum during the year, from 1st January to the 31st December, was 18,300, being an increase of 886, as compared with the previous year.

STAFF, APPROPRIATION, EXPENDITURE AND CORRESPONDENCE.

The strength of the staff at present employed is 47, viz., professional 32, ordinary 15.

During the calendar year the following changes in the permanent staff have taken place:—

Mr. Eugene Coste, Mining Engineer, resigned.

Mr. Jno. McMillan, Field Explorer "

Mr. F. D. Adams, Assistant Chemist "Mr. M. O'Farrell, Caretaker, superannuated,

Mr. E. D. Ingall, appointed Mining Engineer.

Mr. Thos. Burke "Caretaker.

Mr. Allan McKinnon " Messenger.

Mr. R. G. McConnell, promoted from 2nd to the 1st class. Mr. E. R. Faribault "3rd to the 2nd class.

The amount available for the fiscal year ended the 30th June, 1889, was:-

	\$	cts.	\$	cts.
Civil list appropriation			45,900	
General purpose appropriation			60,055	91
The expenditure may be summarized under the divisions named as follows:—				
Civil list salaries	43,319) 56		
Wages of temporary employés	15,396			
Exploration and survey	=24,098			
Printing and lithography	12,583	5 13		
Purchase of specimens	67	75		
Purchase and binding of books and purchase of instruments	1,437	69		
Laboratory apparatus and chemicals	51-	47		
Stationery and mapping materials, and Queen's Printer	1,087	33		
Incidental and other expenses.	2,104	75		
	100,607	96		
Less—Paid in 1888				
	97,348	2 54		
Addances to field explorers				
	103,373			
Unexpended balance, Civil list appropriation	2,580) 44		
	105,955	5 91	105,955	91

The correspondence of the branch shows a total of 7,100 letters sent and 5,860 received.

In my summary report for 1887, page 14, a report to be prepared by Mr. Warren Upham, of the United States Geological Survey, on the Glacial Lake Agassiz, was mentioned.

The report and accompanying maps were received only on the 19th of December, too late to be incorporated in the last Annual Report. I am now in correspondence with Mr. Upham respecting it, and I hope it will soon be ready for the printer.

I have the honor to be, Sir,

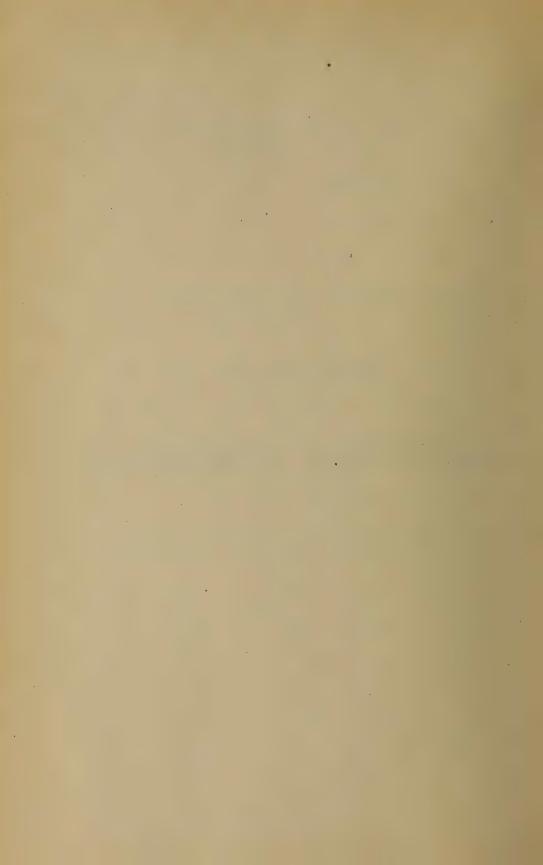
Your obedient servant,

ALFRED R. C. SELWYN,

Director.

PART IV.

NORTH-WEST TERRITORIES.



PART IV.

REPORT CONCERNING THE ADMINISTRATION OF THE NORTH-WEST TERRITORIES FOR THE YEAR 1889.

GOVERNMENT HOUSE, REGINA, 7th January, 1890.

To the Honorable

The Minister of the Interior, Ottawa.

SIR,—I have the honor to submit the following report concerning the administration of the North-West Territories for the year 1889.

I am happy to be able to report favorably upon the general prosperity of the

country.

The harvest of the year has not yielded quite as abundant a return as in 1888; the farmer has had to contend with difficulties of an exceptional character; but upon the whole it may be said that the crop has been satisfactory.

In the ranching districts the year has been most favorable, and shipments of cattle to the markets of the East and Europe have proved remunerative and

encouraging.

The immigration during the season has not been as large as we had hoped for, but the country may well be congratulated upon the class of settlers who are coming from eastern Canada and the European continent to plant their homes in the North-West.

The unprecedented drought which has prevailed this year all over the Territories has caused prairie and forest fires to be more extensive and disastrous than ever. The Ordinance in this respect has proved beneficial, and many parties guilty of criminal carelessness have been brought to justice. I cannot here too strongly express my acknowledgement of the services rendered to the settlers by the North-West Mounted Police in their zealous and active endeavors to enforce the provisions of the Ordinance.

Peace, order and contentment seem to reign supreme at the present day in these vast possessions; criminal offences are few in number, and the laws are everywhere

cheerfully obeyed.

The visit of His Excellency the Governor General of Canada to our Territories has afforded the people a happy opportunity of assuring the representative of Her Majesty of their strong sense of loyalty to the British Crown and their deep attachment to the laws and free institutions of Canada. The Governor General's journey across this vast extent of country will, I am sure, convince him of its unbounded resources, while the cordiality with which he has been welcomed everywhere will certainly result in permanently securing for Canada one more illustrious and devoted friend.

I am happy to state that the two most important items of public expenditure, that of schools and public works, have been applied with the most satisfactory

results.

I can again report an increase in the number of school districts established during the year. Owing to the liberal policy of the Dominion Parliament, in providing for the education of the youth of the Territories, there are to-day in existence 164 schools, attended by 4,574 children, and taught by a staff of 183 properly qualified

teachers. The increase in 1888, over the preceding year, was 20 schools, 240 children; the increase in 1889 is 33 schools, 1,121 children.

The provisions of the Ordinance for the establishment of a higher grade of schools have been put into force, and Union schools are now in operation at Regina and Calgary.

Further details in reference to schools and the general state of education in the Territories will be found in the Report of the Board of Education, a copy of which I forward herewith.

On the 5th November 1889, I selected as an Advisory Council, under the provisions of Sec. 13, Chap. 19, Vic. 51, in lieu of previous Council resigned, the following gentlemen, viz.:-

Robert George Brett, Esquire, Member for Red Deer. John Felton Betts, Esquire, Member for Prince Albert. David Finlay Jelly, Esquire, Member for North Regina.

Benjamin Parkyn Richardson, Esquire, Member for Wolseley.

Subsequently, on the 16th November following, I accepted the resignation of this latter Council, and their successors are now in course of being selected.

SESSION OF ASSEMBLY.

The second Session of the first Legislative Assembly opened on the 16th day of October and closed on the 22nd day of November, 1889.

LEGISLATION.

The following Ordinances were passed during the above Session, namely:

Schedule of Ordinances passed by the Legislative Assembly of the North West Territories during the Session of 1889.

An Ordinance to amend the Ordinance respecting Insane Persons.

An Ordinance to amend "The Poisons Ordinance." No. 2.

An Ordinance to amend Ordinance No. 5 of 1888, intituled "The North West Territories Medical Ordinance, 1888."

An Ordinance to amend "The Agricultural Societies Ordinance." No. 4.

An Ordinance to amend "The Mechanics' Lien Ordinance." No. 5.

An Ordinance to amend "The Ordinance respecting Auctioneers, No. 6. Hawkers and Pedlers."

An Ordinance to amend Ordinance No. 6 of 1888, intituled "An Ordinance respecting the registration of Births, Marriages and Deaths."

No. 8. An Ordinance concerning Receipt Notes, Hire Receipts and Orders for

Chattels. No. 9. An Ordinance to regulate the practice of Dentistry in the North-West Territories.

No. 10. An Ordinance respecting the Expropriation of Lands.

An Ordinance to amend "The Game Ordinance." No. 11.

No. 12. An Ordinance to amend "The Unincorporated Towns Ordinance."

No. 13. An Ordinance to provide for the incorporation of Butter and Cheese Manufacturing Associations.

No. 14. An Ordinance respecting Justices of the Peace. An Ordinance to amend "The Herd Ordinance." No. 15.

No. 16. An Ordinance respecting the Personal Property of Married Women.

No. 17. An Ordinance respecting Hides.

No. 18. An Ordinance respecting Mortgages and Sales of Personal Property. An Ordinance to amend "The Municipal Ordinance."

No. 19. An Ordinance to amend "The School Ordinance." No. 20.

An Ordinance to amend "The Brand Ordinance." No. 21.

No. 22. An Ordinance to amend "The Brand Ordinance." 4

PART IV

No. 23. An Ordinance to incorporate "The Calgary Water Power Company, Limited."

No. 24. An Ordinance to amend "The Interpretation Ordinance."

No. 25. An Ordinance to amend Chapter 41 of the Revised Ordinances of the North-West Territories, respecting the Legal Profession.

No. 26. An Ordinance to amend Ordinance No. 25 of 1889.

No. 27. An Ordinance to incorporate "The Medicine Hat General Hospital."
No. 28. An Ordinance to amend Ordinance 25 of 1887, intituled "An Ordinance to incorporate the Municipality of the Town of Moosomin."

No. 29. An Ordinance to legalize By-law No. 41 of the Municipality of Indian

Head.

No. 30. An Ordinance to legalize a certain Debenture of the School District

of Kenlis Protestant Public School District.

No. 31. An Ordinance to empower certain Boards of School Trustees to compromise for the payment of arrears of taxes.

APPOINTMENTS.

The following is a list of the Territorial appointments made since the Lieutenant Governor's last Report.

Justices of the Peace.

Name.	Address.
Thomas Cope	Alameda, Assiniboia.
Dennis Quigley	Sintaluta do
Samuel William Shaw	Midnapore, Alberta.
William Cox Allen	Fort Macleod, Alberta.
Zachary Taylor Wood	Inspector, N. W. Mounted Police.
Albert Huot	do do
Hugh Matheson Bannerman	
John R. McPhail	Prince Albert, Saskatchewan.
Wm. Cameron Bellemont Grahame.	Winnipeg, Manitoba,
Francis David Wilson	Victoria, Alberta.
Henry William Pollock	Whitewood, Assiniboia,
William McBeth	Prince Albert, Saskatchewan.
Joseph Knowles	
John Stewart	do do
Robert Wyld	Battleford do
Alexander Roderick Chisholm	Bresaylor Settlement, Saskatchewan.
George McCrum	Cumberland House do
Eucher Arcand	Battleford, Saskatchewan.
Angus McKay	Fort Pitt. Alberta.
Simeon Morin	Battleford, Saskatchewan.
Louis D'Eschambeault	
Charles Shillingford	
Charles Michel Daunais	Battleford, Saskatchewan,
Anthony Thomas MacLellan	Katenwe, Assiniboia,
John Clarence Richards	Kinbrae do
Thomas Gilman	
Joseph Courtney.,	Island Lake, Saskatchewan.
Hugh Hassard	Alameda, Assiniboia.
Peter McLellan	Arcola do
Samuel McGurk	Carlyle do
Thomas Montgomery	Alameda do
John Young	Antler do
George John Gagen	Moose Jaw P.O., Assinibola.
Thomas Bawden	Broadview, Assiniboia.
	ART IV

Name.	\mathbf{A} ddress.
Adam McBeath	Prince Albert, Saskatchewan.
James Nichol Cowan	Montgomery, Assiniboia.
Hubert Pelham-Clinton	Swift Current do
Joseph Victor Begin	
Julius Vass	Esterhaz. Assiniboia.
Samuel Chipperfield	.Chickney do
Alexis O. F. Dégagné	. Edmonton, Alberta.
Thomas Scott Rutherford	Balgonie, Assiniboia,
John Cameron	Edmonton, Alberta.
Daniel Maloney	St. Albert do
Edward Fitzgerald	Grenfell, Assiniboia.
Thomas Breers	Kinbrae do
Daniel William Riedle	
William Brough Heath	
William Moran	Moosomin do
William Walter McDonald	Fleming do
William McCorkell	
Septimus Marshall Smith	
Richard James Phin	do Ó do
Jean-Baptiste Pavette	Green Lake. Saskatchewan.
Hugh James Alexander Davidson	Inspector N. W. Mounted Police.
John Cardell	Bantry, Alberta.
Reginald Beatty	Kinistino, Saskatchewan.
Robert Hamilton	Saskatoon do
John Creagh	Bantry, Alberta.
James Leslie	Saskatoon, Saskatchewan.
Herbert Frank Boyce	Abernethy, Assiniboia.
David J. Cantelon	Lorlie do
John Warden McIntosh	Moose Jaw, do
Henry Dorrell	do do
William Edward Bayley	Balgonie do
Thomas O. Davis	Prince Albert, Saskatchewan.
William Carter Sanders	Buffalo Lake, Assiniboia.
William Creighton Matchett	Balgonie do
John Charles McKenzie	Kinistino, Saskatchewan.

Notaries Public.

William Alfred Galliher	Lethbridge, Alberta.
Thomas Hart	The Pas Reserve, Saskatchewan.
George Forbes Guernsey	Fort Qu'Appelle, Assiniboia.
Thomas Christopher West	Calgary, Alberta.
Joseph Allison Fraser	Battleford, Saskatchewan.
Benjamin Parkyn Richardson	Grenfell, Assiniboia.
John James Heaslip	
Frederick G. Fauquier	Maple Creek, Assiniboia.
John Dixon	
Frederick James Boswell	
Harry Bird	Cannington Manor, Assiniboia.
David Venne	Batoche, Saskatchewan.
George Henry Gibson	Battleford do
William John Pozer	
Julius Vass	
Thomas Gainsford Rothwell	
Sidney Stockton Taylor	
	LDM TIL

Commissioners for taking Affidivats.

Name.	Address.	
James George Ross	. Montreal, P.	Q.
John Greenfield	.London, Eng	gland.
Richard John Wicksteed	.Ottawa, Onta	ario.
William Alexander Caldwell	. Montreal, P.	Q.
David Hepburn Russell	.London, Eng	land.
James Hume Dodgson	. do d	lo
Thomas William Bischoff	. do d	lo
Philip Henry Coxe		lo
George Cox Bompas	. do	do

Coroners.

Arthur Edwin	Shelton	Calgary, Alberta.
Ernest Carter		Broadview, Assiniboia.

Issuers of Marriage Licenses.

A. A. Davidson	Calgary, Alberta.
John T. Stemshorn	Regina, Assiniboia,
Robert C. McPherson	Perley do
John C. Richards	
George Lawley	
Richard B. C. O'Donoghue	
Harry Bird	.Cannington Manor, Assiniboia.
William Leigh Bernard	.Calgary, Alberta.
George Edward Jacques	. do do
Robert Harkness Henderson	. Winlaw, Assiniboia.
Thomas Jennette Pearson	. Whitewood, Assiniboia.

Fire Guardians.

John Co	oates	.Perley, Assinibo	oia.
Inspecto	or Constantine	.North-West Mor	inted Police.
do			do
Staff-Ser	rgt. Fyffe	. do	do
do	Richards	· do	do
do.	McGinnis	. do	do
do	Waddell	· do	do
Sergean	t Cochrane	• do	do
do	Brymner	. do	do
do	Colebrook	· do	do
do	Straton	. do	. do
do	Pollock		do
Staff-Ser	gt. Diamond	. do	do
do	W. J. Hall	. do	do
Sergean	t Mountain	. do	do
do	Bidwell		do
do	Marshall	do do	do
do	Blake	do do	do
do	Hilliard	do	do
do	Roby		do
do	Macfarland	do	do
do	Rohrig	do	do
do	Garnham	. do	do
do	Murison	. do	do
		-	

Name.	Address.	•
Sergeant Bruce		Mounted Police
Corporal Wright		do
do Work	do	do
do Bunt		do
do Sparrow		do
do Armer		do
do Bossange		do
do Shleacow	do	do
do McLellan		do
do Shepherd	do	do
Constable J. A. Smith		do
do Kirkman		do
do Sellon		do
do Pearson		do
do O'Gorman	do	do
Inspector White-Fraser		do
do Matthews		do
dc Starnes		do
do Macpherson		do
Sergeant Manely	do	do
Corporal Horne	do	do
do Friars	do	do
do Purchas		do
do Bierd		do
do Baker	do	do.
do Skinner		do
do Martin	do	do
do Weeks	do	do
do Birtles	do	do ·
do Sexton		do
Constable Ashe	do	do
do Barham		do
do Green		do
do Blight		do
do Rushton		do
do Lynch		do
do Watson		do
do Panet	do	do
do Vaudrieul	do	do
Staff-Sergt. White	do	do
do Ross		do
Sergeant Macdonnell		do
Corporal Turnbull		do
do Campbell	do	do
do Elliott	do	do
Constable Allfrey	do	do
do Patrick		do
do Tabor		do
SergtMajor Spicer		. do
do Stewart		do
do Hetherington		do
Staff-Sergt. Fane	do	do
do Bradley		do
Sergeant Allen	do	do
do Barker	do	do
do Brook		do
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Na	me.	Address.	
Sargean	t Monjean	North-West	Mounted Police.
do	Hayne	. do	do
Corpora	l Clarke	. do	do
	Hammond		do
do	Healey	. do .	do
	Cunningham		do
do	McDonnell		do
George :	${ m Ness}$	Pincher Cree	ek. Alberta.

Game Guardians.

Leveret George DeVeber	.Macleod, Alberta.
Andrew Christie	.Pincher Creek, Alberta.
John Smith	
Edward Neale Barker	
Frederick W. Atkinson	

Veterinary Surgeon.

Charles Henry Sweetapple......Sergeant, N. W. Mounted Police.

Registrar General.

Appointed under the Ordinance for the Registration of Births, Deaths and Marriages.—The Clerk of the Legislative Assembly.

Division Registrars.

Oliver Neff	Moosomin, Assiniboi	a.
William Walley		
Robert Patterson	Broadview do	
Harry Bird		Assiniboia.
Samuel V. Bray		do
William Syme Redpath	Qu'Appelle Station	do
George Forbes Guernsey	Fort Qu'Appelle	do
Thomas Brown	Regina	do
Reginald James Steele		do
Hugh Macdougall	Moose Jaw	do
William Cousins		do
Alfred F. Grady		
William Leigh Bernard		
Richard B. C. O'Donoghue		
Hugh Richardson, jr	Battleford, Saskato	ehewan.
Joseph M. Coombs	Prince Albert	do
Charles Adams		do
William John Poser	Duck Lake	do
Colin F. Strang		
	- /	

Medical Practitioners Registered.

Ernest Harold Scott	Moosomin, Assiniboia.
George Allan Kennedy	Macleod, Álberta.
Allan Marshall Lafferty	Lethbridge, do
Charles Selby Haultain	. Asst. Surgeon, N. W. Mounted Police.
-	RT IV]

Advocates Enrolled.

Name.	Addr	ess.
William Alfred Galliher	Lethbridge	e Alberta.
Sidney Stockton Taylor	Calgary	do
Thomas Christopher West		do
James Albert Manning Aikens		Manitoba.
Lawrence King		
Isaac Campbell		
Nicholas Dominic Beck		
Edmund Cave		do
James Stewart Tupper	. Winnipeg,	Manitoba.
Nathaniel Francis Hagel	do	do
Hector Mansfield Howell		do .
Charles Patrick Wilson	do	do
William Redford Mulock		do
John Skirving Ewart	do	do
Patrick James Nolan	Calgary, A	Alberta.
William Henry Culver	. Winnipeg,	Manitoba.
Albert Elswood Richards		do

Dentist registered.

Frederick Davis Shaw......Macleod, Alberta.

I append hereto a Return, as required by Section 93 of "The North-West Territories Act," of all liquor Permits issued by me during the year 1889.

I have the honor to be, Sir, Your obedient servant,

J. ROYAL, Lieutenant-Governor of the North-West Territories. RETURN of Special Permissions for the Importation of Intoxicating Liquors into the North-West Territories during the Year 1889, as required by 49 Victoria, Chapter 50, Section 93. REMARKS. Porter. Beer. Alcohol. TOTAL QUANTITIES. Gim. Wine. Brandy. Whiskey. QUANTITY IN GALLONS OF EACH IN-TOXICANT IN EACH PERMIT. Alcohol. Rum. Gin. .əniW Brandy. Whiskey. PERMITS. 11 [PART IV]

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RETURN of Special Permissions for the Importation of Intoxicating Liquors into the North-West Territories, &c.—Continued.		REMARKS.	
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RETURN of Special Permissions for the Importation of Intoxicating Liquors into the North-West Territories, &c. -Continued. Banff Sanitarium Company. REMARKS. Sacramental. Porter. Beer. Alcohol. TOTAL QUANTITIES. Rum. Gin. 850888410188833008058888 .əniW Brandy. Whiskey. QUANTITY IN GALLONS OF EACH IN-TOXICANT IN EACH PERMIT. Beer. Alcohol. Rum. Gin. .aniW Brandy. Whiskey. PERMITS.

Pharmaceutical purposes.	Banff Sanitarium Company.		
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1,080 ² 454 454 224 224 224 416	$\begin{array}{c} 11,660\frac{1}{2} \\ 1,422 \\ 25,527 \\ 571 \\ 112,448\frac{1}{2} \end{array}$	151,629
Brandy Gin Rum Alcohol	Wine Total 11,660½ Beer 25,527 Porter 571 Beer 112,448½	151,629
Brandy Gin. Rum. Alcohol.	Total e, limited, 4 per cent. aloc	
Brandy Gin Rum Alcohol	Wine Beer Porter. Beer imported for sal	Total

1889: Wine, 1643 galls.; beer, 2,607 galls.

REPORT OF THE BOARD OF EDUCATION FOR THE NORTH-WEST TERRITORIES, FROM THE 13TH SEPTEMBER, 1888, TO 17TH SEPTEMBER, 1889.

REGINA, 17th September, 1889.

To the Honorable Joseph Royal, LLD.,

Lieutenant-Governor of the North-West Territories.

SIR,—The Board of Education has the honor to submit the following report of its proceedings for the past year:

Meetings of the Board were held on the 11th December, 12th, 13th and 14th

March, 16th July and 17th September.

The Rev. A. B. Baird, B.D., having resigned his seat as a member of the Board on account of his having gone to reside in Manitoba, the Rev. S. J. Taylor, B.A., of Moose Jaw, was appointed Member in his stead.

The Rev. John McLean, Ph.D., was appointed a Member of the Board of Exam-

iners, vice Rev. Mr. Baird, resigned.

The Inspectors of Schools, under the control of the Protestant Section of the Board, are the same as last year. For schools under the control of the Roman Catholic Section, the Rev. J. M. Lestanc has been appointed Inspector for the Edmonton District, vice the Rev. H. Grandin, resigned; and the Rev. D. Graton has been appointed Inspector of Schools in Western Assiniboia.

UNION SCHOOLS.

In order that the provisions of the Revised School Ordinance, with respect to Union Schools, might be carried out, the Board, at its meeting in March, adopted the following regulations with reference to Entrance Examinations and the course of study to be used in such schools.

Instructions to Inspectors having Union Schools and to the Principals of such Schools.

The Board of Education, in putting forth the regulations relating to Union Schools, desire it to be understood that these regulations are tentative and provisional, the idea being to bring such schools into operation as soon as possible. When they exist and the Board has had an opportunity of forming an opinion about them, it will revise all the regulations relating to the course of study in all its schools, as well as the regulations relating to the attainments of its teachers.

With regard to the Normal Sessions, the Board feels that it must, at this stage of things, rely very greatly upon the judgment and good sense of Inspectors and Principals to make such arrangements as will result in the carrying on of a complex

system with the utmost advantage to all the pupils concerned.

Students whose literary attainments do not extend beyond the subjects of examination for 3rd class teachers, should be encouraged to take as much of the work required in Standard VI., prescribed for Protestant Schools, or in the Superior Course, prescribed for Roman Catholic Schools, as possible, having regard to the time required to be given to professional subjects, and to what may be required of them in order to gain a knowledge of practical teaching. Such students should, from time to time, take classes in the junior departments of the school, and then only under the direction of the Principal or the teacher of the department.

Students studying the subjects assigned either for first or second class teachers, may take classes in all departments of the school, at the discretion of the Principal.

JAS. BROWN, Secretary Board of Education.

Adopted 14th March, 1889, Department of Education, Regina, N.W.T.

Provisional Regulations with respect to Union Schools, adopted 14th March, 1889.

1. The head teacher of every High School Branch of a Union School shall be

styled the Principal of such school.

2. The Principal shall be a graduate of some University in Her Majesty's Dominion, or have attainments which, in the opinion of the Board of Education, are equivalent thereto, and must also be able to satisfy the Board as to his knowledge and ability to conduct such a school, and to train teachers according to the most approved methods of teaching.

3. The maximum salary for the Principal of any Union School shall not exceed

eighteen hundred dollars per annum.

4. The following books and apparatus shall be provided for each Union School by the Trustees:

An Encyclopædia—Britannica, Chambers' or International; An Unabridged Dictionary—Webster, Worcester or Imperial;

A Gazetteer—Lippincott;

A Biographical Dictionary—Lippincott;

English History—Green and Knight's History of the English People, or Lingard; General History—E. A. Freeman, Merivale's "General History of Rome from the Foundation of the City to the Fall of Augustulus;"

Natural Science—Deschanel; Fowne's and Roscoe's Chemistry; Gray's New

Manual of Botany; Physiological Charts (White's);

English Literature—Chambers' Encyclopædia of English Literature;

Spalding or Taine;

Minto's Manual of Prose Literature;

Characteristics of English Poets—Minto;

Shakespeare's Life, Art and Characters-Hudson:

Dowden's Art of Shakespeare:

Rolfe's Shakespeare;

Victorian Poets-Stedman;

Classics—Andrew's Lexicon (Lat.-Eng.); Liddell and Scott's Lexicon (Greek-Eng.), (larger editions); Smith's Classical Dictionary; Butler's Classical Atlas and Sketch of Ancient Geography;

Geography—Ritter; Guyot's Earth and Man; Guyot's Physical Geography; Guyot's Common School Geography; King's Aims and Methods in Geography; Maps—Classical Maps of Italia, Gracia, Asia Minor and Gallia.

The necessary apparatus for teaching Botany, Chemistry and Physics.

ENTRANCE EXAMINATION.

5. (1.) The regular entrance examination for pupils for the High School Branch shall be in writing, and shall be held half-yearly before the close of each term.

(2.) There shall be papers set on reading, spelling, composition, writing, arithmetic, grammar, geography, history and elementary English literature, bookkeeping (single entry), as prescribed in Standard V of the programme of studies for Protestant schools, and in the "superior course" in the programme of studies for Roman Catholic schools.

(3.) The papers shall be prepared and examined, and the examination shall be conducted by the Inspector for the district and the Head Teacher or Principal of the school. When the examination is over and the results have been declared, the papers, together with the marks obtained, shall be sent to the Secretary of the Board of Education to be filed.

(4.) In order to pass the examination a candidate must obtain twenty-five per cent, of the marks attached to each of the subjects of examination, and forty per cent, of the total number of marks.

(5.) Pupils who come into the district after the regular examination has been held, and who are thought to be qualified for admission, may be placed by the Principal in the High School until the ensuing entrance examination, when they shall be required to pass such examination.

(6.) The following shall be the course of studies in the High School Branch of

Union Schools:-

(a) For Protestant Schools:

STANDARD VI.

Reading—Sixth Reader with recitations.

Spelling—From reading lessons and dictation.

Composition—Further extension of the subject from Standard V.

Writing-The subject continued.

Arithmetic-The whole of Kirkland & Scott's Arithmetic.

Grammar—A thorough knowledge of Mason's Outlines of English Grammar, Geography-Map Geography generally, with Canada and the British Empire more particularly; map drawing.

History—A review of English and Canadian History; Canadian Literature.

Book-keeping—Single and Double entry.

Drawing—Reading's High School Course commenced. Calisthenics and Drill—The subject continued.

Algebra—To the end of simple equations. Geometry—Euclid, Definitions and Book I.

Latin—Smith's Pricipia Latina, Part I., or Harkness' Introductory Latin Book. French—Fasquelle's Lessons in French.

(b) For Roman Catholic Schools: Review of Intermediate Course.

Superior Course commenced and continued.

Geography—General; Canada and the British Empire more particularly; map drawing.

Canadian Literature—Withrow and Adam.

Calisthenics and Drill—Continued. French—Fasquelle's Lessons in French.

Latin—Smith's Principia Latina Part I., or Harkness' Introductory Latin Book,

NORMAL SESSIONS IN UNION SCHOOLS.

1. Every Union School shall have, if required by the Board of Education, a Normal School Department, which shall hold one session each year. Every such session of the Normal School shall open on the first Monday in November and close on the last Friday in March following.

2. The course of instruction during such session shall include:—The History, Science and Art of Education; Methodology; School Organization and Management;

School Hygiene; School Law; Drill and Calisthenics and Practical Teaching.

(a.) Text books prescribed for the use of teachers.

(1.) For 1st class teachers:

Sully's hand-book Psychology; Bain's Education as a Science; Compayre's History of Pedagogy; McCosh's "The Motive Powers;" Fitch's Lectures on Teaching; Landon's School Management; the School Law of the Territories; Hughes' Drill and Calisthenics.

(2.) For 2nd class teachers:

White's Elements of Pedagogy; Quick's Educational Reformers; Janet's Elements of Morals; Fitch's Lectures on Teaching; Baldwin's Art of School Management; the School Law of the Territories; Hughes' Drill and Calisthenics.

(3.) For 3rd class teachers:

Baldwin's Art of School Management; Browning's Educational Theories; Fitch's Lectures on Teaching; Janet's Elements of Morals; the School Law of the Territories; Hughes' Drill and Calisthenics.

- 3. All students in attendance at any Normal Session, shall provide themselves with such books as they are required to use.
- 4. Such persons as desire to attend the Normal Session of any Union School shall notify the Secretary of the Board of Education of their intention not later than the 15th day of September in each year; and shall state:

(a) Age last birthday.

(b) Class of certificate held, (if any).

- (c) If holding no certificate, the subjects they desire to study.
- (d) The name of the Union School they desire to attend.

Each such notification shall be accompanied by a certificate of good moral character.

- 5. All persons, who have passed the non-professional examinations for first, second or third class teachers' certificates, shall be eligible for admission to the Normal Session of any Union School. All other candidates for admission shall be received only by the special sanction of the Board of Education, upon their presenting satisfactory evidence of good moral character and literary attainments.
- 6. Students admitted to any Normal Session shall be required to present themselves at the opening of the Session, to be punctual and regular in their attendance, and to perform faithfully the duties assigned them.
- 7. Any student, whose conduct or deportment during any Session is reported by the Principal as not satisfactory, shall be reported to the Board of Education, and his name shall be taken off the roll, or his case otherwise dealt with, as the Board may determine.
- 8. All students who, at the close of each session, have passed a written examination in the subjects included in the course of instruction, and whose aptiude in teaching is found satisfactory, shall be entitled to a diploma, signed by the Inspector and Principal, certifying the same, and such diploma shall entitle the student receiving it to have the non-professional certificate he then holds exchanged for a professional certificate of the same class and grade; and any student not in possession of a non-professional certificate, who obtains such diploma, shall be entitled to teach until the ensuing August examination, upon passing which, he shall be entitled to receive such professional certificate as is provided for under said regulations.
- 9. Any student, whose aptitude in teaching is reported, at the close of a Normal School Session, to be superior, shall be entitled to receive a professional certificate of Grade "A" of the class he then holds or has held within one year of the date of such session, or if he holds no non-professional certificate, he shall be entitled to a professional certificate of the highest grade in the class in which he may pass within one year thereafter, subject to the regulations governing the issue of professional certificates.
- 10. No person who has once obtained a third-class professional certificate shall be entitled to another professional certificate of the same grade, upon his passing the non-professional examination, without a second attendance at the Normal School, unless certified as an efficient teacher by his Inspector.
- 11. Any student attending a Normal School Session shall have the right to attend such classes, in Standard VI, in the programme of studies of the Protestant section, or the superior course of the Roman Catholic section, as he may desire, but, having once come to a decision, he shall not withdraw from any class without the consent of the Principal.
- 12. The examinations at the close of a Normal Session in any Union School shall be conducted by the Inspector for the district and the Principal of the school, and when the examination is over and the results have been declared, the papers, together with the marks obtained, shall be sent to the Secretary of the Board of Education to be filed.

ENTRANCE EXAMINATION

In accordance with the foregoing regulations examinations were held, with results as follows:—

School.	No. of Candidates.	
Regina	18	18
Moose Jaw		7
Medicine Hat		5
Lethbridge	15	15
Calgary	28	24
Prince Albert	22	16
Lacombe (Cath. sep,)	15	15

From the above statement it will appear that Moose Jaw and Medicine Hat are not yet in a position to open Union Schools.

At Lethbridge, two teachers only being employed, the school does not fulfil the

requirements of the Ordinance.

At Prince Albert 16 of the candidates were pupils of the Nesbit Academy, a

private institution, and were therefore ineligible.

Since the summer vacation Union Schools have been opened at Regina and Calgary, and the reports from them are encouraging. We understand a Union School will be opened in Lacombe district during the present term.

TEACHER'S EXAMINATION.

The annual examination of candidates for teachers' certificates began on the 6th and closed on the 10th August last. In order to meet the convenience of the candidates, examinations were held at the following places in the Territories, viz.:—

Moosomin, where 34 candidates were present.

Fort Qu'Appelle, where 3 candidates were present.

Regina, where 40 candidates were present.

Prince Albert, where 15 candidates were present.

Saskatoon, where 3 candidates were present.

Lethbridge " 2 " "
Calgary " 9 " "
Edmonton " 4 " "

In all 128 candidates presented themselves for examination, 8 for first-class certificates, 23 for second-class, and 97 for third-class. The result of the examination was as follows: 7 candidates passed for first class certificates, 19 for second-class, and 69 for third-class.

The following is a list of the successful candidates, namely:-

First Class.—Grade B.

James Balfour, Sister Delphine Bouquet, Sister Philomena Crotty, L. Bruce Latimer, Sister M. Agnes Ollivier, William Short, Allen D. Tracy.

Second Class.—Grade A.

Herbert H. Skinner.

Second Class.—Grade B.

William Adams, Sister Theresa Ambrose, Emma Mary Andrews, Carrie Bray, Frankie G. Brown, Edgar Albert Chappell, Isabella A. Coulson, Sister Faustine Cornish, James A. Hamilton, Mary K. Hunter, George H. Hutton, James W. Jones, Mrs. M. O. McCready, John McLean, John W. McPhail, Willa Simpson, Herbert A. Solly, Jean P. M. Piquet.

Third Class.

Clara Adair, Mary Alexander, David Archibald, Aggie M. Balfour, Thomas Bear, Addie Bird, George P. Bray, Charles F. Brears, Maggie Broley, Joseph N. Brunet, Louisa Burton, Lizzie Cameron, Lisle Carr, Samuel R. Carrothers, Hugo E. Carstens, Louie G. Chappell, Sarah A. Cox, Jennie Cullum, Carrie Davies, George R. Davies, Harry F. Dennehy, Carnaby W. Ferry, Ebon T. Ferry, Catherine E. Geddes, Kate J. Gillespie, Frances Gilroy, May Givin, Donald H. Grant, Hulda E. Graves, Victor L. Greenwood, Florence Glover, Sadie Hastings, Frances Mary Hayward, Annie Henderson, Edith Revilo Higgins, Annie Hodnett, Edward Hopkins, James Hulme, Gudney Jones, Thomas E. Jones, Joseph Lapointe, Charles H. Lawford, Kate Lawford, Mary Lucas, Mary McCallum, Minnie McCallum, Duncan A. McDonnell, Tillie McIntosh, Sarah McMillan, Kate Middlemiss, David Miller, Joseph Morton, Lena May Neville, Samuel Spencer Page, Philomene Parenteau, Herbert J. Rex, Christopher J. Rosborough, John R. Sangster, Helen A. Shaw, Wm. James Skafte, Louisa Smith, Wm. Stiff, Charles Ibeson Sweet, J. Donaldson Tait, Eliza Tate, Agnes Thompson, Martha Thompson, Clara White, Minnie Wismer.

UNIVERSITY LAND GRANT.

At the meeting held on the 14th March the following resolution was unanimously adopted:—

"Whereas several years ago the Government of Canada gave a grant of 150,000

acres of land to endow a University for the Province of Manitoba:

"And whereas such land was not selected at the time, and now, owing to the settled state of the country, great difficulty is experienced in obtaining suitable lands available for the purpose:

"And whereas the very rapid growth of educational matters in the Territories leads to the belief that, in a very few years, it will be necessary, in order to complete

our educational system, to establish a University:

"And whereas each of the three Provisional Districts of the Territories is of larger area than Manitoba, and each is therefore entitled to a grant for University

purposes at least as large as that given to said Province:

"And whereas the Board feels that it is most desirable that such a grant should be obtained as soon as possible, and that the land should be selected and set apart for University purposes before much more settlement takes place, and while large quantities of land are available for selection:

tities of land are available for selection:

"Therefore the Board of Education would respectfully request His Honor the Lieutenant Governor in Council to make representations to the Dominion Government, as soon as convenient, with a view to obtaining, at an early date, a grant of land for University purposes for each of the Provisional Districts of Assiniboia, Alberta and Saskatchewan."

The above resolution was endorsed by His Honor the Lieutenant Governor in

Council, in the following minute passed 2nd May, 1889:—

"Resolved,—That this Council strongly endorses the resolution of the Board of Education passed on the 14th March, 1889, with reference to a grant of land for University purposes in the Territories, and that the same, together with a copy of this resolution, be forwarded to the Secretary of State of Canada, for the consideration of the Governor General in Council."

Subsequently the following reply was received from His Excellency the Governor General in Council:—

"Certified copy of a report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 26th June, 1889.

"The Committee of the Privy Council have had under consideration a despatch dated 20th May, 1889, from the Lieutenant Governor of the North-West Territories, transmitting a copy of a resolution passed by the Board of Education of the Terri
[PART IV]

tories in reference to obtaining a grant of land for University purposes in the Territories.

"The Minister of the Interior, to whom the question was referred, states that the consideration of this question at the present stage in the history of the North-West is, in his opinion, premature, and that not until the country has been divided and erected into separate Provinces can a question of this nature be finally and advantageously dealt with.

"The Committee recommend that the Secretary of State be authorized to forward a copy of this minute to the Lieutenant Governor of the North-West

Territories.

"All which is respectfully submitted for your Excellency's approval."

The Board at its meeting in July passed the following resolution:—

"This Board having had laid before it a copy of a report of a Committee of the Honorable the Privy Council, approved by His Excellency the Governor General in Council on the 26th June, 1889, in respect to a resolution passed by this Board in reference to obtaining a grant of land for University purposes in the Territories, and in which the Committee report 'that the consideration of this question at the present stage in the history of the North-West is premature, and that not until the country has been divided and erected into separate Provinces can a question of this nature be finally and advantageously dealt with.

"While this Board recognizes the difficulties at present in the way of making grants of land for University purposes, as requested by the minute of this Board, passed on the 14th March last, yet this Board would respectfully suggest the advisability of, by minute of Council or in some other way, selecting and setting apart lands for University purposes in the Provisional Districts of Assiniboia, Alberta and Saskatchewan, so that the same may be available to be granted when the country is divided and erected into into separate Provinces; otherwise, when that time arrives, no lands may be available for that purpose, or the lands available may be of comparatively little value:

"And resolved, that a copy of this minute be furnished to His Honor the Lieutenant Governor in Council, for transmission for the consideration of His Excellency

the Governor General in Council."

SECRETARY'S SALARY.

In June, 1888, the Board adopted a resolution respectfully recommending that the salary of the Secretary of the Board be increased from \$1,500 to \$1,800 per

No action having been taken upon this resolution, the following resolution was

unanimously adopted at the meeting of the Board held on the 14th March last.

"The Board of Education has heard with regret that His Honor the Lieutenant Governor in Council has not acceded to the wish of the Board in reference to an increase of salary for its Secretary, as expressed in a resoution of the Board which was unanimously adopted at a meeting held in June last:

"The Board, in venturing to bring the matter again before His Honor the Lieutenant-Governor in Council, desire very respectfully to submit that the Secretary's duties are increasing almost daily; that the present salary bears no adequate proportion to their extent and importance; while, at the same time, the manner in which these duties are performed leaves nothing to be desired:

"For these reasons the Board earnestly hopes that the question will be reconsidered, so that the salary may be increased to \$1,800 per annum, and that such

increase date from the 1st of July last (1888)."

NUMBER OF SCHOOLS IN OPERATION.

The following table shows the number of schools in the different inspectorates in operation during the last quarter of the current year, as contrasted with those in

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operation during the corresponding quarter of last year, from which it will appear that the increase of schools, under the control of the Protestant section of the Board, is as follows:—

Increase	in number	of schools	
do	do	teachers employed 28	
do	do	pupils 801	
nd in school	s under the	e control of the Roman Catholic section of the Board	:
Increase	in number	of schools 8	
do	do	teachers employed 5	
do	do	pupils 320	

Making a total increase of 33 schools, 33 teachers, and 1,121 pupils during the year.

SCHOOLS IN THE VARIOUS INSPECTORATES.

		1889.			1888.	
Inspectorates.	Schools Open.	Teach- ers Em- ployed.	Pupils.	Schools Open.	Teach- ers Em- ployed.	Pupils.
Under Protestant Section.						
East Assiniboia West Assiniboia Prince Albert District Calgary do Macleod do Edmonton do Battleford do	52 41 17 12 3 6 2	54 46 19 15 4 7	1,123 1,153 520 410 147 183 69	38 38 13 9 3 5	40 42 14 11 4 6 2	727 1,050 361 345 122 154 45
	133 108	147 119	$\frac{3,605}{2,804}$	108	119	2,804
Increase in 1889	25	28	801			
Under Catholic Section.						
Edmonton District	6 1 3 1 13 5 2	9 3 3 1 13 5 2	248 113 74 57 321 115 41	5 1 1 1 8 7	8 3 1 2 10 7	165 70 13 48 220 113
	31 23	36 31	969 649	23	31	649
Increase in 1889	8	5	320			
Showing a total increase in 1889 of	33 Schools.	33 T'chers.	1,121 Pupils.			

NEW SCHOOL DISTRICTS.

During the year 37 new school districts have been erected and proclaimed in various parts of the Territories, as per following list:-

SCHOOL DISTRICTS UNDER CONTROL OF PROTESTANT SECTION.

No.	District.	Secretary.	P. O. Address.
137	Mistawasis	Edward Johnstone	Snake Plain via Carlton, Saskatchewan.
138	Esterhaz	Rev. T. A. Teitelbaum C. O. Hofstrand	Esterhaz, Assa.
139	Swea	C. O. Hofstrand	Ohlin do
140		Thos. McNutt	
141	Auburn	Thos. Cope	Alameda do
142	Cochrane	James Johnson	Cochrane, Alta.
143	Winlaw	R. H. Henderson	Winlaw, Assa.
144	High River	Isaac Potter	High River viâ Calgary, Alta. Fairmede, Assa.
145	Rose Dale	G. C. Lewis	Fairmede, Assa.
146	Workman	Allan McDougald	Elmore do
147	Stanley	W. J. Dimmick	Moosomin do
148	Elmore	John Ormond	Elmore do
149		Jno. W. Large	
150	Grenfell	M. Freeman	do do
		Wm. Cross	
		C. H. H. Parker	
153	Spring Lake	Glasgow Winter	Broadview do
154	Inglesfield	Kenneth Corbett	Fleming do
155	Marvfield	Wm. Stableford	"Dene Grange," Lippentott, Man.
156	Marlborough	Jno. D. Fraser	"Dene Grange," Lippentott, Man. Marlborough via Moose Jaw, Assa.
157	Ebenezer	Hugo Carstens	Yorkton, Assa.
158	Cotham	Ernest Jno. Bissick	Broadview do
159		W. P. Hopkins	
160	Cannington Manor	S. Spencer Page	Cannington Manor Assa
161	Sunny South	E. W. Stewart	Qu'Appelle Station do
162	Moose Mountain	Jas. F. Hindmarch	Cannington Manor do
		Murdoch McDonald	

SCHOOL DISTRICTS UNDER CONTROL OF THE CATHOLIC SECTION—PUBLIC SCHOOLS.

23	Sitkala	Joseph Lapointe	Willow Bunch, Assa.
		Rev. J. V. Fourmond	
		Elie Vaud	
		Leon E. Paré	
27	St. Jean Baptiste	Rev. V. Pineau	Stobart, Sask.

	SEPARATE SCHOOLS.					
7	St. Joachim	Antoine Prince	Edmonton, Alta.			
8	Holy Cross	C. F. Gigot	Macleod do			
9	Lethbridge	Christopher McRae	Lethbridge do			
10	St. Alexander	Rev. Geo. Montreuill	Qu'Appelle Station, Assa.			
11	St. Patrick	Julia Stack	Prince Albert, Sask.			

STATISTICAL TABLES.

The statistical tables prepared by the Secretary and appended to this report furnish interesting and important details of the working of our educational system in the various school districts of the Territories.

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ese tables are	as lonow	8:		
Statistics of	school for	r summer term, 1888A	ppendi	ix I
do	do	winter term, 1888–89	do	Π
do		quarter ended 30th June, 1889		III
Expenditure		of funds from 1st July, 1887, to		
			do	IV

We have the honor to be, Sir,

Your obedient servants,

CYPRIAN, SASKATCHEWAN AND CALGARY, Chairman, Board of Education.

JAS. BROWN,

Secretary, Board of Education.

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REPORT on Schools for Winter Term ended 31st March, 1889—Continued.

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REPORT on Schools for Winter Term ended 31st March, 1889—Continued.

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03.1\$ ts tas	Capitation Gra per capita.	**************************************
Present 50	No. of Pupils Days.	5255488 085827-041488828
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Grant on Teacher's Certificate.	Quarter end- ing Dec. 31, 1888.	**************************************
	Inspector's Report.	Excellent do do do Good Excellent Good Very good do do do Cood Very good Good Good Good Cood Good Good Very fair Very good Good Good Very good Cood Cood Very good Cood Cood Cood Cood Cood Cood Cood
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Teacher's Certificate.		1st] 3rd 1st 1st 2rd 3rd 3rd 1st 1st 3rd 1st Pro Pro Pro Pro Pro
Teacher.		Rev. Julien Moulin L. O. Lamoureux Sister Dillon C. M. Turcotte Rev. J. T. Quevillon G. W. Gairdner. Sister P. Allard. O. Pellier Octave Regner Octave Regner Octave Begner Conésime Dorval. A. de Laronde L. S. P. de la Croix Joseph Brunet. Catherine Tourond. Rev. T. P. Planondon. A. O. Garnot. R. F. Dennehy P. Parenteau Alphonsine Vandal Joseph Laponte. Joseph Laponte.
). District.		1 St. Antoine. 2 Saskatchewan. 3 St. Albert. 4 St. Léon. 5 Cunningham. 6 Bellerose. 8 Sobart. 9 St. Laurent. 10 Loudes. 11 St. Vital of Battleford. 12 Lebret. 12 Lebret. 14 St. L. de Langevin. 15 St. J. de Dauphinais. 16 St. F. de Taché. 17 St. Joseph. 18 St. Agnes. 19 New Munster 20 Mazenod. 21 St. Julien. 22 St. Paul. 23 Sitkala.
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		Teacher.		Sister Mary Green. Rev. D. Gillies. Annie McKinnon. Ronald McDonald. L. McPhee. Sister F. McCormack. Sister J. Coughlan and Asst. W. J. McDonald.	
		District.		1 Lacombe 2 St. Andrew. 3 St. Mary 3 St. Mary 5 St. Peter 6 Prince Albert 7 St. Joachim. 7 St. Joachim. 8 Holy Cross. 9 Lethbridge.	
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Total.	e cts.	146 00	224 00	315 87	393 00		73 50 81 00		107 25	168 75		198 00	88 68 80 17 80 17			512 25
Capitation Grant.	e cts.								19 80	27	<u>.</u>	:	15 00			
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Percentage of Salary.		70	22	55.5	322	385	22	75	955	122	22.2	65	385		3,75	55.23
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Class of		2nd	2nd	3rd Pro	2nd	2nd	2nd	1st	3rd.	lst	Ist	3rd	3rd	Pro	1st	2nd 3rd
Teacher.		Ida McMillan. Lena Simpson.	D. S. McCannel. Nettie L. Bulyea.	J. F. A. Stull. Robena McGregori.	Alexina Mediegor N. F. McKay. Cassie Barnes.	Isabella Kerr. Ida M. Bond.	Mary Wallace Miss H. C. Moonev	Jas. Martin.	Wm. Gerrond.	W. E. Bartlett.	Wm. Logan. J. K. McInnis.	Eliza J. Guthrie.	James Lesne. J. W. McPhail. Maggie Buchanan.	Miss Cherry.	Sarah Thompson James Short.	Minnie Wheeler Sadie Cowan
Percentage of Attend- ance.					: :					9 :			74	88		
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Grant for Quarter.	& cts.	105 00 72 15 40 95		32 42 82 82 82 82 82 82 82 82 82 82 82 82 82	
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Salary per Month.	e cts.	50 00 37 00 21 00		%	
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Teacher,		Ida J. Morrison. M. McLean J. C. Richards.	314.314 4.	C. I. Sweet. Jean Traquair Margt. Hislop. Louisa F. Brogden Jean-Balfour A. Stauffer A. Stauffer A. Young	
Percentage of Attend- ance.		76		55 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	
Average daily Attend-			800000		
No. of Pupils on Register		33	113 14 15 15 15 15 15	81243100000000000000000000000000000000000	2
Days Open.		: 62 53 :: 63 65 ::		7.040108868	1.000000000000000000000000000000000000
District.				88 Canaduff 83 Welwyn 85 Clare 84 Pine Creek 85 Midnapore 86 Wellington 87 Balcarres 88 Crangeville	90 Forest Farm. 91 Fort Saskatchewan. 92 Strassburg. 93 Pheasant Valley. 94 Glen Adelaide. 95 St. Leonards. 97 Alameda. 97 Orkney. 98 East Edmonton. 99 Saskatckewan. 90 Saskatckewan.
No.				282222	9889989999
		- 11	PART IV		

178 50 102 50 96 87			72 25 123 75 77 40 121 70 86 00 65 96 50 00	112 50 69 75 76 75	65 00 99 00 73 50 88 50	72 25 58 50 73 70 46 50 71 88 107 33	105 00 64 50 104 37 111 41 79 71	42 50 66 00 36 75 66 00
15 00 12 50	10 68	10 00 15 00	13 75 11 25 10 15 00 12 50 12 50 12 50 9 7 63	15 00 11 25 13 75		13 75 8 75 7 50 15 00 7 33	12 50 12 50 12 50 15 00 11 66	10 00 10 00 7 50 10 00
		39 00 157 50 112 50 65 00		97 50 58 50 63 00		58 50 65 00 83 00 100 00		32 50 56 00 29 25 56 00
555	65	8228	6222636	65.		755555	75 75 75 75	65 70 70 70 70
-			8 2 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	20 00 30 00 30 00	33 33 33 33 30 00 00 00 00 00 00 00 00 0	30 00 30 00 33 33 40 00 50 00	50 00 32 00 43 75 42 85 41 66	25 00 40 00 30 00 40 00
2nd	Pro	Pro 1st. 1st. 3rd.	3rd. 1st. 3rd. 2nd 2nd 2nd 3rd.	3rd. 3rd. 2nd	Pro 2nd 1st. Pro 2nd	Pro 3rd 3rd Pro 1st.	2nd 3rd. 2nd 1st.	Pro 2nd 3rd*:
N. Gilmour. 80 Louisa Burch. 90 Esther A. Sutherland.	70 Lizzie Cameron	75 Gudney Jones Jos. Boag. 84 W. C. Middleton Mrs. Cinnamon	Will Will Held Held F. C Leo Ade	77 A. E. Cox. 58 D. L. McPherson. 70 C. F. Lallemand.		68 W. J. Skafte E. J. Chappell 50 L. Roberson. 82 E. Johnstone. 52 Rev. T. A. Teitlebaum	C. E. Cumning 80 E. Scott 67 Florence Goodridge 80 I. N. Guthrie 85 Maggie J. Walker	89 V. L. Greenwood 80 H. G. Webb 90 J. W. Jones 83 Belle J. Ross
: 989	4.75	25 E E E E E E E E E E E E E E E E E E E		10. 13. 8. 8.	26 14 113 14 14	23.0 10 10	: : : : : : : : : : : : : : : : : : :	01 10 10 110 110 110 110 110 110 110 11
	:	36 36 36	::132			9 30 14 117 113	27. 115 115 116	13 11 23 23
20 20 20		. 422 24 		62			: 60 10 10 10 10 10 10 10 10 10 10 10 10 10	31. 37. 31.
02 National Park. 03 Gleichen. 04 Red Deer Central. 05 I angesphyre	Willoughby Devon Park	Thingvalla Anthracite Crescent Bresaylor	12 Silton. 12 Silton. 13 Fioneer 14 Glemmore 15 Orangedale 16 Katepwe 17 Hope 18 Castletown 19 Buffalo Lake		25 South View 26 Pahonan 27 Florence 28 Red Deer Lake 39 Brookside 30 MacDowall	Aroline Fairmede Fairmede Wickay Mistawasis Esterhaz	39 Swea. 39 Swea. 41 Aubum. 42 Cochrane. 43 Winlaw. 44 High River.	46 Workman 47 Stanley 48 Elmore 49 Ducks Point. 55 Gereffell

REPORT for quarter ended 30th June, 1889-Continued.

Total.	\$3 20 cts \$3 50 6
tatior ant.	2 25 50 50 50 50 50 50 50 50 50 50 50 50 50
Grant for Capitation Quarter. Grant.	
at for rter.	28 cts. 28 44 28 44 29 25 25 25 25 25 25 25 25 25 25 25 25 25
Gran	& :∞ ⊢₁♡ ⊘ ⊘ ; ⊘ ; ; ;
Percentage of Salary.	7,750,000,000,000,000,000,000,000,000,00
y per	s s s s s s s s s s s s s s s s s s s
Salary per Month.	** : : : : : : : : : : : : : : : : : :
Class of Gertificate.	
Class	1st
9	1st. 3rd 3rd 2nd Pro Pro
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l'eacher.	H. M. Lister Eliza J. Rutherford C. H. S. Traill. Miss M. Alexander Hugo Carstens.
Ŧ	H. M. Lister Eliza J. Rutherf Miss M. Alexan Hugo Carstens Ellie E. Carson.
	M. Lister za J. Ruth za J. Ruth ss M. Alex go Carsten ie E. Carso
Percentage of Atten-	83 88 88 88 88 88 87 87
Average Daily Atten-dance.	10 8 8 16 6 14 19
No. of Pupils on Register	12 10 10 18 17 16
Days Open.	17 10 10 10 10 10 10 10 10 10 10 10 10 10
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District.	anor
T	ake d ugh on Mi
	erdale ng La esfield yfield lboro nezer nam . kton ningten y So se Mc
	E2 Riverdale 153 Spring Lake 154 Implesfield 155 Maryfield 156 Marlborough 157 Ebenezer 158 Cotham 169 Yorkton 160 Cannington Manor 161 Sumy South.
No.	[PART IV]
	[PART IV]

Total.	8 cts. 106 25 25 25 26 25 26 25 26 26 26 26 26 26 26 26 26 26 26 26 26
Capitation Grant.	* cts. cts. cts. cts. cts. cts. cts. cts.
Grant for Quarter.	88 88 88 88 88 88 88 88 88 88 88 88 88
Percentage of Salary.	6: 6:6:6: 6:3:0:0:6:6:3:0:0:0:0:0:0:0:0:0:0:0:0:0:
Salary Per Month.	** 4488878518878474888889 8388 8388 8388 8388888888888 8388888888
Class of Certificate.	18t. 3rd 11st. 3rd 11st. 3rd
Teacher,	Rev. J. Moulin. L. O. Lamoureux. Sister Dillon. do des Anges. do Jette A. A. Rinquette Rev. Quevillon. G. W. Gairdner. Sister Allard. Miss Peletter. O. Regnier. Miss Peletter. I. S. P. de la Croix I. S. P. de la Croix I. S. P. de la Croix Miss Fourmend T. P. Plamondon. A. A. Hebert. Mrs. Perenteau. Mrs. Parenteau. Mrs. Parenteau. Miss Vandal J. Lapointe.
Percentage of Attend- ance.	67 77 77 78 88 88 89 99 99 99 99 99 99
Average Daily Attend-	15 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
No. of Pupils on Register.	200 80 22222222 110 12 12 12 12 12 12 12 12 12 12 12 12 12
Days Open.	81 64 82 82 82 82 82 82 82 82 82 82 82 82 82
District.	St. Antoine Saskatchewan St. Albert St. Leon Cumunigham Cumunigham Stobart St. Laurent St. Laurent St. Loures St. Vital of Battleford Lebret. St. Louis de Langevin St. Joseph de Dauphnais St. Joseph de Dauphnais St. Joseph St. Agnes New Munster Mazenod St. Paulien
No.	12 8 4000001121475178128282
	[PART IV]

* For four months.

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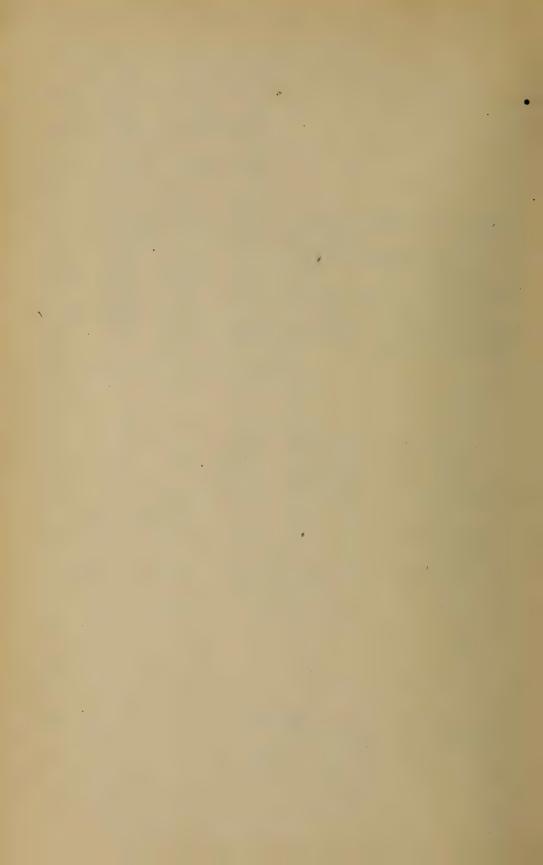
Total.	ets.	258 12 90 00 47 61	327 50 129 00 157 50	128 12
Capitation Grant.	ets.	02.6	12 50	18 75
Grant for Quarter.	ets.	121 87 87 50 48 75 90 00 37 91	93 75 187 50 140 00 105 00 157 50	*109 37
Percentage of Salary.		75 70 75 75 65 65	24222	20
Salary Per Month.	ets.	54 16 41 66 25 00 40 00 25 00	41 66 83 33 66 66 70 00	41.66
Class of Certificate.		1st. 2nd Pro 1st. 3rd.	1st. 1st. 2nd 2nd 1st.	2nd
Teacher.	•	Rev. Sr. Green do Quigley do Poiret. Rev. D. Gillies. Miss McKinnon	Sister McCormack do Coghlan do O'Neill W. J. Macdonald C. McRae	Sister Stack
Percentage of Attend- ance.		64	52	80.
Average Daily Attend-		81 20 7		Ħ
No. of Pupils on Register.		29 113		14
Days Open.		61 42	54 59 61 59	72
District.		Lacombe St. Andrew. St. Mary. St. Maryet.	5 St. Peter. 6 Prince Albert 7 St. Joachim. 8 Holy Cross 9 Lethbridge. 10 St. Alcondom	St. Patrick
ģ		H 01004	700 F 800	112

* For 28 months

[PART IV]

APPENDIX No. 4—Estimates and Expenditures of School Funds from 1st July, 1887, to 30th June, 1889.

	. Items.	Financial 1st July to 30th Ju	, 1887,	Financial Year, 1st July, 1888, to 30th June, 1889.			
	A A LUMAS.	Estimates.	Expen- diturés.	Estimates.	Expen. ditures.		
		\$ ets.	\$ ets.	\$ cts.	\$ cts.		
	Grants to teachers and assistant teachers	23,924 79	27,823 71	38,916 60	34,523 20		
	Capitation grants and grants on Inspectors' reports.	7,137 50	7,709 64	10,012 50	10,130 70		
	Salaries of Board of Examiners and School Inspectors, including travelling expenses	2,950 00	3,364 84	4,400 00	5,546 32		
4	Expenses of Board of Education, remuneration and travelling expenses	1,000 00	1,479 40	1,700 00	1,064 10		
	Secretary's salary	1,200 00	1,400 00	1,500 00	1,500 00		
6	School supplies, rent, &c., &c	195 00	111 86	100 00	30 00		
•	Lieutenant-Governor	5,000 00	1,205 00	5,000 00	2,262 50		
8	Printing forms, regulations, reports, &c	500 00	884 80	500 00	775 67		
9	Clerical assistance	300 00	250 00	600 00	630 00		
10	Stationery, postage, telegrams, &c	300 00	216 60	500 00	258 74		
11	Miscellaneous		101 21		263 40		
		42,507 29	44,547 06	63,229 10	56,984 63		



PART V.

ROCKY MOUNTAINS PARK.



PART V.

REPORT OF SUPERINTENDENT OF ROCKY MOUNTAINS PARK.

Banff, 30th December, 1889.

To the Honorable

EDGAR DEWDNEY, M.P.,

Minister of the Interior, Ottawa.

SIR,—The following report of the works carried on in the Rocky Mountains Park for the past year under my supervision I have now the honor of presenting.

On the 1st of May, 1889, a small force of men was placed at work on Spray Avenue, several culverts built, the roadbed completed and put in first-class condition. This avenue was also extended south of the Canadian Pacific Railway hotel to give access to the villa lots taken up the year previous in that locality. This road may now be considered as second to none in the park.

A large quantity of the surplus material taken from the ditches on this road was used for gravelling Glen and River Avenues after they had been ditched and drained, so that these roads, which had been cut out and made passable during the previous years, were fully completed and placed in good order this year in the most economical manner, as the surface material of one road served to make up the diffciencies of the others at one operation.

Mountain Avenue—leading to the Hot Springs—was the first road constructed in the park, and each year since it was opened a certain amount of labor has been expended in widening and draining it, as circumstances required.

This work has been completed this year, and Mountain Avenue may now be

classed with the others in the park as excellent.

The branch avenue leading from Mountain Avenue to the middle springs was also completed, and easy access to that beautiful and interesting spot is now attainable.

These works were carried on with a small force, and occupied the months of May and June, and on and after the first of July the force was increased, and the work of opening and extending new avenues was commenced more vigorously.

The most important of these being the road from the Spray bridge down the Bow River, and round the base of Peak Mountain, and round again by the Bow, thus affording a drive of about seven miles of the most charming scenery in the park, and giving access to many fishing points along the Bow.

Portions of this road were also necessary to reach certain building sites on the

Bow, which persons expressed a desire to take up and build on.

Buffalo Street was graded and ditched as far along the Bow as villa lots had been taken up and built on, but easy access to which was not attainable till this road was completed.

Later on in the season this road was extended on down the Bow River to the

falls, affording the most beautiful and romantic drive in the park.

A portion of Minniwauka Avenue was gravelled this year, having been left

unfinished the previous year in consequence of early snowfall.

Several of the streets in the village of Banff were graded this summer, and the lanes in rear of the building lots cleared out and graded, giving the people the means of reaching their warehouses by the rear, and preventing injury to the trees and plantations in front of their buildings.

A sidewalk was also built on each side of the Main Street, from the bridge to

Cariboo Street, and crossings made at points most convenient for the public.

14-13****

A number of evergreen trees were planted along the outside of the sidewalk, and inside the ditch, and grouped so as to add much to the beauty of the village.

These works are now completed, and will in the future require only ordinary repairs. They were necessary, from the fact that many persons living on the rear streets had no roads but the natural surface of the ground, and in some cases their places of abode or business were nearly inaccessible from the main roads.

Besides the utility of this work it has had the effect of adding much to the

appearance of the town as well as to the convenience of the inhabitants.

In closing the work for this season advantage was taken of a fall of a few inches of snow to clean up and burn a large quantity of brush and rubbish that had accumulated during the summer from the work on the roads, and a small force of men was kept on for that purpose, which will not only add to the appearance of the drives but reduce the danger from fires next year.

FOREST FIRES.

Early in May a fire occurred in the hay marshes on the south and west of the Bow River, which for a time appeared very serious, but through the exertions of the men on the works, the inhabitants of the place, and the favorable change of the wind, no damage was done further than the scorching of some ornamental trees in that portion of the park, but which, however, was of sufficient importance to cause great regret that these fires should occur, and their causes remain so difficult to ascertain.

During the month of June very extensive fires were seen coming towards the park from the west, and in due time they approached the boundary. No human efforts could avail to arrest the flames while they surged through the heavy pine timber beyond the limits of the park, on the north-west side, but the bare summits of the mountains, which form that boundary, were effectual in arresting their progress, notwithstanding the terrific fury of their approach.

All that could be done under these circumstances was to watch carefully for the sparks and masses of burning wood carried by the wind over the mountain peaks,

and falling thousands of feet from their source.

All the men on the works had to be taken off to fight this demon, and the inhabitants were warned out to assist for days in cutting out fire breaks and preventing the spread of these fires down into the valleys of the park: at last success crowned our efforts, with comparatively little damage to the park, but considerable destruction to the adjoining timber limits.

The fires this season have been the most destructive known for many years, and now that they are over it is satisfactory to know that as regards the track of the fire this year we can hardly be visited from the same quarter for some time to

come.

The damage and danger experienced this year from bush fires and the risk of them forcing their way to the interior of the park at some future time impressed me with the importance of cutting out avenues through the dense pine groves. Over six miles of this work was done this summer, and not only are good fire breaks found to that extent, but easier means of access to distant fires are afforded the men in their efforts to reach the places threatened. In cases such as these, any kind of a road or path is of great use in enabling the men to reach the fire in its early stages. Many of the avenues leading in the direction to intersect the usual path of these fires are now opened, and in future the difficulties attending this work will be much lessened, besides which the labor of opening these roads is so much work done towards their final completion. This I considered as the most economical mode of meeting the difficulties from fires.

Besides the advantages of this work as fire breaks, these opened roads afford means of access to many points in the park for persons on foot or horseback who visit to explore, hunt or fish beyond the range of the carriage roads, and persons seeking sites for building can now better locate their positions by having the plan of

the park mapped out on the ground for them.

[PART V]

NURSERY.

As mentioned in my report for last year, a better site had been secured for the nursery, and as early as possible last spring the ground was laid out and fenced with wire.

The young trees were moved from the old sites and from the trenches in which most of them were placed, and planted afresh in the new nursery—and as this work could not be commenced till after the frost had left the ground, the time left for this tedious operation was not sufficient to give these young trees a fair chance; but, notwithstanding this, they appeared in a very flourishing condition throughout the summer, owing in part to the good quality of the soil and to the excellent facilities

for watering and irrigating the whole space allotted to the nursery.

It is situated immediately at the base of the Cascade Mountain, and the stream from whence the mountain takes its name falls perpendicularly some thousands of feet down its face and disappears amidst the *debris* at its base at a point about 300 feet above the level of the plain. At this point a portion of the water is led into a box or small reservoir, and from thence a pipe leading down the slope conveys the water to the nursery, where stand pipes, at several places, allow the water to be distributed by means of a short hose to every point required, and the whole nursery can be watered on short notice at no additional labor or expense.

Had this site not been secured for the nursery and this system of irrigating it not been devised, it is a question if the idea of cultivating a nursery could have been carried out successfully, as the difficulties and expenses of supplying water to

the shrubs would have been very great.

The trees have now had two removals, and it cannot be said that they have had a fair chance for living; but notwithstanding this drawback they show ample life and vigor, at least as regards the deciduous trees.

The evergreens never did look healthy, and I fear that many of them cannot recover. This, however, is of little consequence, as the park is well supplied with evergreens, and of a quality much superior to anything that can be imported.

About seventy-five per cent. of the deciduous trees have succeeded, and there can be no doubt that a much larger proportion would have been saved if the present site for the nursery could have been secured at the time of their arrival here. This, however, was impossible at the time, and the next best thing was done.

BRIDLE ROADS.

The avenues chopped out this year but not yet graded will answer in the mean time a good purpose as bridle roads and paths for persons on foot, but I would strongly advocate the opening up of a more extended system of these bridle roads leading up the several valleys of the park.

At the heads of the several smaller streams falling into the Bow, and on the Bow itself, many small lakes are found, well stocked with fish, and the surrounding

country abounds with game of various sorts.

It is very desirable that these points should be reached for the benefit of sportsmen and others, and it is thought that this object can be attained most effectually and cheaply by means of bridle roads leading up through the valleys; while in the centre of the hunting grounds a cheap log hut could be built and rented to parties wishing to occupy it, at so much per week, whereby a sum sufficient to pay the interest on the outlay on the building could be obtained. This scheme would be very popular, and would add much to the attractions of the park.

These bridle roads can be built cheaply, and no true sportsman would object to travel 10 or 15 miles over such a road for the sake of a few weeks sport. Besides it is desirable that roads leading to these hunting grounds should not be available as carriage roads, as in that case the seclusion of the hunting grounds might be inter-

fered with.

VISITORS.

The number of visitors to the park during the past season, although exceeding that of any previous year, did not come up to what might reasonably have been expected.

Several causes may be assigned for this, the most effective being the great quan-

tities of smoke that lodged in the mountains for many weeks.

The fires that took place early in the season, although local, did not have the effect of obscuring the mountains in the park, but those that occurred later on, in August and September, threw a dense cloud over the whole mountain ranges, as far

west as the Pacific coast, and eastward to Medicine Hat.

These fires raged through Oregon and Washington Territories along the Pacific, and westerly winds prevailing for several weeks carried the smoke through the mountains. The consequence was that hundreds of people passed on through the mountains without stopping, as usual, to enjoy the magnificence of the scenery, and others deferred making the trip from the reports they heard of the obscuring effects of the smoke.

It was unfortunate that the visit of the Canadian Medical Association took place at this time, as it was very desirable that such a highly intelligent and influential body of men should see this health resort in its usual condition, and not in the exceptional one in which it was unfortunately their fate to witness it.

exceptional one in which it was unfortunately their fate to witness it.

On the 19th October His Excellency the Governor General, Lady Stanley and suite, visited the park, and during the three days of their stay visited many places

of attraction and interest.

BUILDINGS.

In the autumn of 1888 a contract was entered into for the erection of a dwelling house for the Land Agent here, and in November another contract for the dwelling for the Superintendent.

The contract for the Agent's house was completed in April last, but the Superintendent's house has remained unfinished, in consequence of the builders' inability to

complete it within the terms of the contract.

TELEPHONE.

A telephone system has this year been established by Mr. Gisborne, under instructions from the Minister of Public Works.

The system connects the Mounted Police barracks, the Government offices, the Hot Springs, the Cove and the Canadian Pacific Railway hotel.

METEOROLOGICAL.

A table of the temperatures and other particulars of the weather for the past year is the result of observations made by Mr. Macleod, who had also charge of the nursery during the summer months.

I have the honor to be, Sir, Your obedient servant,

GEO. A. STEWART,
Superintendent.

Work done from 1st May to the 31st October, 1889. ROADS.

	110	ADS.	
	Nature of Work.	Locality.	Quantity.
Gravelling	g	Minniwauka	242.4 rods
Ditching	and gravelling	Glen Avenue	109.0 do
Gravelling	g	River do	133 · 3 do
Grading a	and gravelling	Spray do	218·2 do
widening	r, &c	Glen do	60.6 do
Close cutt	ing, grading		2,290·7 do
	, grading		90·9 do
	and ditching		290·8 do
		Total	3,587 · 4 rods or 11 · 21 miles
Close cutt	ing	Laret Avenue	2,980 feet
do	***************************************		4,900 do
do	***************************************		750 do
do	••••••••	Aspen do	3,200 do
do	**************************	Elm do	3,030 do
do			6,500 do
do	*******	Chestnut do	3,970 do
do		Pine do	7,610 do
		Total	*32,940 feet
		•	
	STREETS, 1	LANES, ETC.	
Gravelling	g and ditching	Buffalo Street.	300 feet
do	do	Cariboo do	1,020 do
do	do	Wolf do	1,200 do
do	do	Bear do	600 do
do	do	Beaver do	1,400 do
		Total	4,520 feet
Lanes			2,800 feet
Sidewalk.	•••••	Banff Avenue	1,600 feet
	EXPENDITUR	E ON WORKS.	
	On What Expend	ded.	Amount.
			\$ cts
Roads	******************		9,729 19
	******************************		6,066 12
Surveys	• • • • • • • • • • • • • • • • • • • •		1,500 87
	• • • • • • • • • • • • • • • • • • • •		44 45
Waterwor	ks		1,587 11
	Basin		22 10
	s' salaries		1,008 10
Clearing le	and	• • • • • • • • • • • • • • • • • • • •	420 37
Contingen	and		170 61 655 45
		•••••	21,204 37

^{*}Equal to 6.23 miles 40 feet wide or 30.24 acres. [PART V]

Number and Nationality of Persons who Registered at the Cave and Basin.

Nation.	Number
anada	2,2
nited States.	5
ngland.	1
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ape of Good Hope.	
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ndwich Islands	
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C. P. R. HOTEL.

Visitors between 1st November, 1888, and 31st October, 1889.

From	November, 1888.	December, 1888.	January, 1889.	February, 1889.	March, 1889.	April, 1889.	May, 1889.	June, 1889.	July, 1889.	August, 1889.	September, 1889.	October, 1889.	Total.
Canada England Scotland Ireland	63 5 	40 2	28	51 1	48 1	61 8 2	58 23 1 2	89 27 2 4	151 26 2	309 19 5	156 40 5	145 26 4	1,199 177 22 7
Australia New Zealand India China. Japan			3				2 4 6	3 2 3 4	1 4 2	$\begin{array}{c} 2 \\ 2 \\ \dots \\ 1 \\ 1 \end{array}$	$\begin{bmatrix} 3 \\ 1 \\ 2 \\ 4 \end{bmatrix}$	1	15 5 7 15 17
Germany France Holland Switzerland	i						2	····· 1	1	4	5	1	2 11 1 1
Belgium Sandwich Islands Cape of Good Hope Mexico United States of America					$\begin{bmatrix} 2 \\ \cdots \\ 7 \end{bmatrix}$	15	 1 30	69	135	158	1 56	30	1 1 1 513
Total	76	44	34	55	58							211	1,999

SANITARIUM.

Visitors between 1st November, 1888, and 31st October, 1889.

From	November, 1888.	December, 1888.	January, 1889.	February, 1889.	March, 1889.	April, 1889.	May, 1889.	June, 1889.	July, 1889.	August, 1889.	September, 1889.	October, 1889.	Total.
Canada	99 1	119	106	129	98	103	99	142 12	206 10	173 2	106 2	136	1,516 30
Scotland Ireland Australia					$\begin{array}{c} 1 \\ \cdots \\ 3 \end{array}$			1	2				3 1 3
China	7	9	12	 1	2	1 3	8	13	$\begin{vmatrix} 1 \\ \cdots \\ 7 \end{vmatrix}$	13	9	6	1 1 90
Total	107	128	118	130	104	107	110	168	226	188	117	142	1,645

Observations of the Temperature and general state of the Weather, taken at Banff, between the 7th November, 1888, and 31st October, 1889.

Date.	The	ermome	eter.	Weather.	Date	e.	The	ermome	eter.	Weather.
	7 a.m.	2 p.m.	9 p.m.				7 a.m.	2 p.m.	9 p.m.	
1888.	0 /	0 '	0 ′		1888	3.	0 /	0 /	0 /	
Nov. 7 do 8	15·0 28·5			Fine. do squally.	Jan. do	5	$\frac{6.0}{27.0}$	27·0 29·0	16.0	Fine and bright sun. Cloudy.
do 9 do 10	29·5 30·0	42.0	26 0	do and bright. Dull; cloudy.	do	7.8	9.0		8.0	Fine and bright sun.
do 11 do 12	39.5	43.0	35.0		do do	$\frac{9}{10}$	0·0 2·0	11·0 14·0		do
do 13 do 14	-13.0	23.5	0.0	Fine. Bright and fine.	do do	$\frac{11}{12}$	5.5	12.5		Snow; cloudy. Fine.
do 15 do 16	$-9.0 \\ -3.0$	11.0	-5.0	do	do do	13 14	-23.0	-1.5	-12.0	do
do 17 do 18	$-8.5 \\ -5.0$	20.0	8.5	do	do	15 16		10.0	-5.0	do
do 19 do 20	$\frac{7.0}{22.0}$	29.0	31.0	Gloomy. Fine.	do do	17 18	4·0 -1·0	16.0	12.0	do
do 21	12·5 25·0	35.0	25.0	do	do do	19	1·0 20·5	20.0	19.0	do
do 22 do 23 do 24	16·0 18·5	33.0	26.0		do do	$\frac{20}{21}$ $\frac{22}{22}$	17·0 7·0	25.0	19.0	do do
do 25 do 26	30·0 24·5	42.0	27:0	do	do do	23 24	$27.0 \\ 37.0$	35.0	37.0	Cloudy and squally. Overcast.
do 27	5.0	27:0	11.0	do	do	25 26	$7.0 \\ 12.0$	30.5	21.5	Fine and bright sun.
do 29	10.0	27.5	18.0	Snow; cloudy.	do	27	7.0	35.0	22.0	do
do 30 Dec. 1	16·0 13·5	29.0	18.5	Fine.	do	28 29	14·0 12·5	31.8	13.5	do
Dec. 1 do 2 do 3	33·0 8·5	44.0	42.5	Dull and squally. Overcast; slight rain.	do do	30 31	10.0	32.0	29.0	
do 4 do 5	28.2	41.0	34.0		Feb.	$\frac{1}{2}$	26·5 29·0	38.5	31.0	Cloudy; squally.
do 6 do 7 do 8	25·5 14·5	26.0	32 0	Dull. do	do do	3	14.0	22.0	25.0	Snow. Fine and bright sun.
do 9	17.0	22.0	10.0	Slight snow.	do do	5 6	4.0	33.5	15.0	do
$ \begin{array}{ccc} do & 10 \\ do & 11 \end{array} $	18.0	32.0	$\frac{17.5}{20.0}$	Dull. Fine and bright.	do do	7 8	3·0 4·0	33.0	27.0	do
do 12 do 13	27:0	40.0	39.0	Slight snow; cloudy. Fine.	do do	9 10	30.0	38.5	37.0	Fine. Cloudy.
do 14 do 15				do do	do do	$\frac{11}{12}$	21·0 41·5		38.0	do Snow, $1\frac{1}{2}$ inches.
do 16 do 17	15·0 22·5			do Fine and bright.	do do	13 14			8.0	Fine. Gloomy.
do 18 do 19			31·0 27·0	Fine, bright, squally.	do do	15 16			-7.0	Overcast. Fine and bright sun.
do 20 do 21		40.5	38.0	do	do do	17 18	-17:0	12.5	2.0	
do 22 do 23	27:0	28.0	10.0	Snow, 14 in.; cloudy. Fine.	do do	19 20	-16.0	16.2	14.0	
do 24 do 25	-18.5	3.0	6.0	do Very fine and brightsun	Feb.	21 22	-14.0	-1.5		Overcast; snow.
do 26 do 27	-3.0	0.5	-4.0	do	do do		-12.0	-12.5	3.0	
do 28 do 29	-5.0	8.5	2.5	do	do do	25 26	11.0	32.5	30.5	
do 30 Dec. 31	-9.0	0.0	3.5		do do	27 28	41.0	46.0	42.0	Fine and bright sun.
1889.		22 (Tile, squarry.	Mar. do	1 2	31.5	42.5	37.0	do
Jan. 1 do 2				Fine.	do do	3	14.5	41.0	32.0	do
do 3	-2.5	8.0	-2.0		do	5	29.5	50.5	28.5	do
do 4	-2.0) 8.5	5 13.0		∥ do RT V]	0	10 0	71 PEP E	20 8	, do

OBSERVATIONS of the Temperature at Banff, &c.—Continued.

_		1			ons of the Temper	TT.			,		· · · · · · · · · · · · · · · · · · ·
Da	ite.	The	ermome	eter.	Weather.	Da	te.	The	ermome	eter.	Weather.
		7 a.m.	7 a.m. 2 p.m. 9 p					7 a.m.	2 p.m.	9 p.m.	
188	39.	0 /	0 /	0 /		188	9.	0 /	0 /	0 /	
Mar. do	. 7	18·5 15·0	49·0 49·5	$\frac{26.0}{29.0}$	Fine and bright sun.	May do	4 5	41·2 35·0	39·0 40·0		Overcast; heavy squalls Cloudy.
do do	9 10	14·5 27·0	44·0 32·5	29.0	do Overcast.	do	6	33.0			Overcast; snow and
do	11	17.0	29.8	24.5	Fine.	do	7 8	32.2	58.8	38.0	rain. Fine.
do do	12 13	23·0 1·0	26·0 10·0	1.0		do do	8	31·8 33·8	61·5 68·5	52·5 51·0	Cloudy. Fine and bright.
do do	14 15	-3.0	$12.5 \\ 44.0$	3.0	Overcast. Fine and bright sun.	do do	10 11	34·0 33·0	69·0 74·8	53·2 35·0	do
do	16	27.0	46.0	37.5	do	do	12	35.0	60.5	41.2	do rain in p.m.
do do	17 18	23·0 33·0	47·0 41·5	42·0 30·0		do do	13 14	41·2 37·5	46.5 44.0	36.0	Very gloomy.
do do	19 20	$\frac{20.5}{17.0}$	40.5	21.0	Cloudy. Fine.	do do	15 16	33·8 29·8	40·0 58·5	37.5	Overcast; slight snow. Fine.
do	21	21.0	45.0	40.0	Fine and bright sun.	do	17	28.3	62.5	46.0	do
do do	21 22 23	29·0 33·5	50·0 53·5	36.5	Gloomy. Fine.	do do	18 19	36·0 39·5	49·5 61·0	62.2	Overcast; rain. Fine.
do do	24	36·0 23·5	46·0 47·0	38.0	Gloomy. Fine; slight rain.	do do	$\frac{20}{21}$	29·8 36·8	71·0 61·0	51.0	do Cloudy ; rain.
do	25 26 27	33.5	51.0	42.2	Fine.	do	22	36.5	59.0	34.5	Fine; squally.
do do	28	24·0 25·0	54·5 45·0	34·0 30·5	do	do do	$\begin{array}{c} 23 \\ 24 \end{array}$	29·8 35·0	$\frac{61.0}{60.5}$	51·0 54·0	
do do	29 30	36.0	$\frac{46.0}{47.2}$	38·0 42·0		do do	25 26	43·0 30·0	71.0 67.5	52·0 51·5	
do	31	33.5	51.0	42.2	do squally	do	27	30.0	66.5	51.0	do
Apri.	1 1 2 3	$\frac{36.0}{26.5}$	34·0 39·0	33.0	Overcast, slight snow. Snow, 3 inches.	do do	28 29	46.5	70·0	54.0	Cloudy. do squally.
do do	3 4	30·0 32·5	49·5 60·0	38·0 38·0	Fine and bright.	$ \begin{array}{c} \text{do} \\ \text{June} \end{array} $	30 1	44·0 27·0	50 8 71·0	47.5	do do rain. Fine.
do	5	27.5	55.5	45.0	do Mosquitoes	do	2	30.0	76.0	57.0	do
do	6	29.5	51.2	33.0	Snow gone. Since and	do do	3	36·0 47·0	80·5 67·0	58.5	Fine; squally.
do	7	25.0	58.5		bright. Butterflies seen.	do do	5 6	46·5 33·5	54·5 51·5	49·0 43·0	do do
do	8	27.5	62.0	43.2	Bright sunshine.	do	7	36.0	52.0	42.5	do
$rac{ ext{do}}{ ext{do}}$	10	$\frac{28.0}{27.5}$	65.8	38.5	do do Thermometer	do do	8	$\frac{38.5}{39.0}$	$\frac{66.0}{74.0}$	55·5 64·5	do heavy smoke.
đo	11	26.0	57.0	47.0	82° in sun. Thermometer100° in sun	do	10 11	44·2 45·5	$\begin{array}{c} 77.0 \\ 72.0 \end{array}$	68·5 48·5	do do do do
do	12	32.0	49.5	40.0	Cloudy.	do	12	47.0	50.0	38.0	Cloudy.
$rac{ extbf{d} ext{o}}{ ext{d} ext{o}}$	13 14	$\frac{31.0}{28.5}$	39·0 44·0	$\frac{34.0}{28.5}$	do do squally.	do do	13 14	$\frac{40.0}{39.0}$	45·0 71·5	44·0 61·5	Fine.
$rac{ ext{do}}{ ext{do}}$	15 16	$24.0 \\ 25.0$	44·5 45·0	30.0	do do	do do	15 16	45·5 51·5	$\frac{71.0}{68.0}$	58·5 61·0	Fine and smoke.
do	17	29.0	46.0	40.0	do	do	17	47.0	61.2	51.0	do
do do	18 19	34·5 35·2	46·0 48·5	37·5 36·0	do Fine and sunshine.	do	18	49.0	60.0		Fine sky, obscured by smoke.
do do	$\begin{vmatrix} 20 \\ 21 \end{vmatrix}$	25·0 34·0	55·0 45·0	46.0	Fine. Cloudy; rain.	do do	19 20	42·5 40·0	61.5	52·0 52·5	
do	22	36.5	50.5	40.5	Fine.	do	21	43.0	73.0	61.0	do
do do	23 24	30·2 43·0	56 0 56 5	45·0 48·0	do and clear. do windy.	do do	22 23	45·0 39·0	$72.0 \\ 42.0$	63·0 35·5	Cloudy; heavy squalls.
$\frac{\mathbf{do}}{\mathbf{do}}$	25 26	24·0 25·6	$63.0 \\ 64.2$	40·8 41·5	do do	do do	24 25	43·5 46·0	$63.5 \\ 74.5$	59·0 55·0	Fine.
do	27	33.5	66.5	20.0	do smoke from moun-	do	26	47.0	69.5	48.0	do
do	28	29.0	63.0	47.0	do do slightrain	do do	27 28	45.5	63·5 56·0	54·0 49·0	Cloudy. do rain.
do do	29 30	24·5 27·0	61.8	46·2 52·0	do do do Fine; smoke from forest	do do	29 30	46.5	58·0 61·0	46·5 48·0	do do
		29.0			fires.	July	1	44.0	69.0	58.5	Fine.
May	1 2	24.0	$\begin{array}{c} 73.5 \\ 71.0 \end{array}$	53·0 52·0	do do do do	do	$\frac{1}{2}$	46.0	73·5 78·0	69·0	do
do	3	25.0	69.0	55.0		do w	4	48.0	74.0	46.5	Cloudy.
	[PART V]										

OBSERVATIONS of the Temperature at Banff, &c.—Concluded.

	1									
Date.	Temperature.			Weather.	Date.		Temperature.			Weather.
Dave.	7 a.m.	2 p.m.	9 p.m.	***************************************	1		7 a.m.	2 p.m.	9 p.m.	
1889.	0 '	0 /	0 /		188	9.	0 /	0 /	o ′	
July 5			39.0		Aug.	26	53.0		58.0	Cloudy; slight rain.
do 6 do 7 do 8	45·5 35·0	58·5 38·0	37.5	do do Rain.	do	27 28	45·0 41·0		47.0	Heavy rain; squalls. Cloudy.
do 8	36.0	60.5	48 0	Fine.	do	-29	49.5	69.0	64.0	Fine.
do 9	41.0	75.0	61.0	do	do	30	48.0	75.5	64.0	Cloudy & heavy squalls.
do 10	39·0 35·0		46.0	Cloudy.	do	31	39·0 39·0		34·0 45·0	Rain and snow.
$ \begin{array}{ccc} do & 11 \\ do & 12 \end{array} $				do rain. Fine.	Sept.	1 2 3	44.5		49.0	Rain
do 13			58.0	do thunder storm in		3	31.0	53.0	45.0	Cloudy.
do 14 do 15	34·0 46·0		51.0	p.m. Fine. Cloudy; thunderstorm.	do	10	25.0	38.0	27.0	Cloudy. Snow fell during night of 9th and all day—9 inches.
do 16		65.5	50.5	Fine.	do	11	26.0	36.0	30.5	Gloomy; snow.
do 17	45.5	73.0	56.5	do	do	12	23.0	37.0	27.5	Cloudy.
do 18	46.0	67.0	52.0		do	13	21.5			Slight snow.
do 19 do 20	43·5 44·0	75·5 57·0	55.0	Cloudy ; rain.	do do	14 15	39·0			Overcast; snow.
do 20	48.0	62.0	50.0	do	do	16	37.0		52.0	Fine.
do 22	35.0	73.0	59.0	Fine; thunder storm in	do	17	36.0	69.0	62:0	do clear sky.
do 23	40.0	72.0	50.5	p.m. Fine.	do do	18 19	38.0		60.0	do do do cloudy sky.
do 24	41.0	75.0	61.0	do	do	24	31 0	55.0	41.0	Cloudy.
do 25	46.0	76.5	69.0	do	do	25	36.0	68.0	51.5	Fine and clear.
do 26	61.0		68.5	Fine; forest fires.	do	26	33.0			
do 27 do 28	46.5	76.0	56.0	do	do Oct.	27	36·0 48·0			do Cloudy and squally.
do 26 do 27 do 28 do 29	46.0	78.5	55.0	Fine smoke.	do	4	43.0			Fine and clear.
do 30	43.0	60.0	36.6	Cloudy; rain, thunder	do			73:0	61:0	do
1 01	40.0			and lightening.	do	5 6 7 8 9	34.5		59.0	
do 31 Aug. 1	42·0 44·2	$72.5 \\ 71.0$	58·5 52·0	Fine; heavy smoke.	do do	7	30.0	$\begin{array}{ c c c }\hline 74.0 \\ 67.0 \\ \end{array}$	60·0	
$\begin{array}{ccc} \mathrm{Aug.} & 1 \\ \mathrm{do} & 2 \end{array}$	41.5	74.0	58.0		do	9	31.0	63.0	45.0	
do 3	44.0	73 0	58.0	do do	do	10	45.0	55.0	44.0	do
do 4	45.0		60.5		do	11	40.0		43.0	Cloudy.
do 5 do 6	46.0		54.0	do do	do do	12 13	39·5 38.0			Fine and clear.
uo 0	40 0	58 0	55 0	Fine; 9° of frost during night.	do	14			48.9	do do
do 7 do 8	39.0		90.0	ao	ll ao	15	29.0	60.0	40.5	do .
do 8	39.0	76.0	51.0	do	do	16	34.0		43.5	do
do 9 do 10			$\frac{60.0}{53.0}$	Smoke; heavy.	do do	17 18	34.5		48.0	do Cloudy.
do 10			60.0		do	19			39.0	Fine and clear.
do 12	41.0	73.0	53.0	do	do	20	29.0	49.0	36.0	do
do 13	41.0		63.0		do	21	31.0			
do 14 do 15	39·0 41·5	62·0 74·8	51.0		do do	$\frac{22}{23}$	29·0 33·5	50·0 57·0		
do 16		64.0	55.0	Fine; heavy smoke.	do	23	55 0	37.0	35 0	in p.m.
do 17	36.0	60.5	52.0	do	do	24	33.0	52.0	41.0	Fine.
do 18	43.0				do	25	34.0			Cloudy and squally.
do 19 do 20	35·0 37·0				do do	26 27 28 29	42.0			Fine and clear. Cloudy; rain; squalls.
do 21	35.0				do	28	42.0		47.0	do
do 22	39.0	58.0	52.5	do	do	29	29.5	40.0	40.0	Fine and clear.
do 23	43.0				do	30	28.0	38.0		do
do 24 do 25				Fine.	do	31	14.0	47.0	35.0	do and clear.
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PART VI.

REPORT OF THE FORESTRY COMMISSIONER.



PART VI.

REPORT OF THE FORESTRY COMMISSIONER.

Anderdon, Ont., 31st December, 1889.

To the Honorable

EDGAR DEWDNEY, M.P.,

Minister of the Interior, Ottawa.

Sir,—I have the honor to report that during the past season successful efforts at the plantation of forest trees have been made on the Experimental Farm for the North-West Territories at Indian Head. Several fine varieties of elm, ash, maple, pine, locust, spruce, alder, birch and cedar have been cultivated with success. Mr. Mackay, the Superintendent, has also introduced from Brandon a large number of ash-leaved maples, and appears to be succeeding well in the cultivation of forest trees. At Brandon, Mr. Bedford, the Superintendent of the Experimental Farm there, has successfully engaged in forest tree culture, having planted out a large number of ash-leaved maples, and having also a nursery in which native ash, maple and basswood trees are being raised from the seed. These attempts are, however, on a small scale, and are only indications of what it might be possible to accomplish. Any other attempts at forest tree culture in the North-West are being left for the present to private enterprise. Their cultivation is being carried on in isolated cases with varying success by individual owners.

Professor Saunders, Director of Experimental Farms, has given much thought to the question of forest tree culture. He is trying various methods, with a view to solve the difficulties which are incident to the problem of tree planting in the North-West. He has experimented with seedlings purchased from nurserymen who cultivate the forest tree from seed, and also has planted out nurseries from seed. His experiments with the Riga pine, which is planted out in beds with seed imported from one of the Russian forests near Riga, bid fair to be highly successful. Should

they prove so, it will be of inestimable advantage to the North-West.

The great difficulty which at present impedes the cultivation of large plantations of forest trees in Manitoba and the North-West is climatic. In early spring delightfully soft, balmy days, something like the maple sugar weather in Ontario and Quebec, awaken the young trees to life and cause the sap to run, and then suddenly a terrific blizzard from the north and north-west comes down and freezes up the sap and destroys the trees. Professor Saunders is now engaged in experiments with a view to overcoming this climatic obstacle. I have thought that by planting the young trees very closely together, or by sheltering them during their earlier seasons, as is done in the case of the seedlings at the Model Farm at Ottawa, this trouble might be gradually lessened, or willows or cotton wood might be planted with the young trees as a shelter belt protection for them against these early spring frosts and sudden and extreme changes of temperature. As yet, of course, we have no practical experience in the North-West on the subject, and can only base any action we may take upon knowledge obtained from what has been done in other countries with the same characteristics both of soil and climate. In the several Provinces of the Dominion and in the North-West the practical study of forestry can hardly be judged by what our people have done—for what have we done? Nothing but destroy.

I would respectfully recommend that an effort be made to arouse the interest of the Local Governments in the different Provinces to the importance of the question of forest tree plantation, and that they be asked to appoint commissioners to co-operate with your commissioner in holding meetings and discussing this important question, as is done by forestry commissioners in the United States. The commission might meet at Winnipeg or Regina, and prepare, from the best available sources of information, a hand-book for the use of the farmers and settlers of Manitoba and the North-West. They should also evolve some plan which would meet with the approval and adoption, not only of the Dominion Government, but of the several Provinces, for re-plantation and plantation of forest trees on an extensive scale by the respective Governments in the Provinces and Territories.

I would suggest that in the meantime such an amount as you may deem consistent, considering the importance of the work to be done, be placed in the Estimates for the cultivation of forest tree plantations at different points in the North-West. I would suggest that these plantations be commenced, in the first instance, at the several stations of the North-West Mounted Police, and that that force be given the

control and responsibility of their development and protection.

The great desert steppes of Russia have in large districts, by the action of the Government, been changed into extensive and valuable forests, which are now a source of revenue to the State. Towns have sprung up in their neighborhood, where fruit culture is carried on in consequence of the protection of these forests, and at

points as far north as any existing settlements in the North-West.

The work to be done in the North-West is one of gradual and almost imperceptible growth; but it is one which, if properly done, and on an extensive scale, may be made a source of great future profit to the Dominion. The Government, the ranch companies, the land companies, the railway companies at all their several stations, and the people themselves, have all to do their share. But the Government must take the initiative, and the first step would be the establishment of these experimental forestry plantations, which I have suggested, at the different stations of the North-West Mounted Police. These stations would in time furnish not only a practical but a scientific school for the intelligent management of forests by means of knowledge derived from experiment and experience, and would give encouragement to settlers to cultivate smaller plantations on a smaller scale, each on his own farm.

In British Columbia the ravages by fire during the past year have been greater than any hitherto known, caused almost entirely by sparks from locomotives. On each side of the railroad track is a belt of felled timber which, on account of its extreme dryness, ignites easily and acts as a medium or train for conveying the fire to the forest. My reports from there estimate the loss during the year at over \$1,000,000. This could have been avoided had the smoke pipes of the engines been properly screened. On the other hand, it is satisfactory to be able to report that in many places which in former years had been swept by flames the forests are

reproducing themselves.

One correspondent, a man thoroughly conversant with lumbering in all its branches, writes: "British Columbia contains more timber to the square mile than any country in the world, and with careful management would yield an unlimited supply for all time." None but the mature trees should be cut. The growing trees would mature more rapidly and young seedlings spring into life. This applies more particularly to the interior and eastern slopes of British Columbia than to the vicinity of the coast, where rains are much more frequent and the atmosphere humid. Owing to the mountainous character of the country, the total denudation of hills by the axe would be ruinous to the land, as the heavy rains which always follow a protracted drought would wash down all the soil, leaving only bare and rugged rocks.

The forests which cover the head waters of all rivers that originate in the mountains should be carefully protected from destruction. If not, the accumulated snows of winter, under the influence of the Chinook winds, the hot sun and spring rains, will melt rapidly, causing disastrous floods at one season of the year, while at others the volume of water will be so reduced as to materially lessen the availability of the river for navigation or other purposes. At the recent Congress of the

American Forestry Association held at Philadelphia, the Hon. Carl Schurz gave particular emphasis to the paramount necessity of guarding the forests that guard the rivers: "There is a mountain region in the far north-west which demands the earliest possible attention of our national authorities. It is the great area of mountain forest covering the head waters of the Missouri and the Columbia. The Government cannot too soon take effective steps to protect these forests, which are the most important in the United States, against destruction, by making them permanent reservations and having them carefully guarded." These warning words of the venerable statesman speak with equal meaning to us. The Fraser and many other Canadian rivers are exposed to the danger that threatens the Missouri and the Columbia.

The absence of trees on the plains and prairies is keenly felt by settlers, and they are looking forward hopefully to the establishment of the forestal experimental stations. The Government would find it to its own interest to establish them in the neighborhood of the Mounted Police stations, where young trees could be obtained at a nominal price, or for nothing. It would also be well to encourage tree planting by offering premiums for the best groves or groups of trees. But mere tree planting will never meet the requirements of the North-West. Large tracts must be planted and maintained in order to promote industrial and climatic advantages; and till something in this respect is done the advance in the settlement of the country will not be what we could hope for or expect in a country otherwise so richly endowed. The Government has been bountiful in promoting almost all other enterprises. The forests alone have had no helping hand, although they have hitherto been one of our

greatest sources of wealth.

I have referred to the benefits that accrued from the planting of forests on the great steppes of north-eastern Russia. These steppes, like our western plains, were deemed inhospitable and worthless. They now support a numerous and well-to-do population, with large towns and villages exporting largely of fruits, cereals, &c. In order to achieve a success equal to that which crowned the efforts of Russia on the great steppes, we must have trained and experienced foresters. To originate, conserve and manage such forests so as to make them profitable, requires a thorough practical knowledge of, as well as technical skill in, forestry, and these can only be acquired in schools of forestry. When the Government of India awoke to the great necessity of conserving and renewing the forests, some seventy-five young Englishmen were sent by the Secretary of State for India to be educated at the forestry schools of France and Germany. Sir D. Brand, F. R. S., &c., &c., late Inspector General of Forests to the Government of India, in his report, 1888, dwells at considerable length on the absolute necessity of having thoroughly trained officers; and it was at his request that the Government of India utilized the forestry schools of France and Germany for the training of young men for the Indian Forest Service. Our wants are not so pressing as those of India, and it is not likely that any students will in the near future be sent abroad to study. The expense that would necessarily occur would be the greatest objection. But could not something be done at home? Could not forestry classes be attached to our Military School at Kingston and our Universities? We now expend large sums of money for propagation of fish, for harbor protection and improvements, and many other things that are of no greater moment nor of more pressing necessity than forest culture on the great plains of the North-West. In Europe, particularly in Germany, where education in forestry has attained the highest standard, opinion inclines towards uniting the forestry schools with the Universities. Recently the Wurtemburg Forest Academy was removed from Hohenheim to the University of Tubingin, and the Bavarian Academy to the University of Munich. It may be worthy of note here that at these German Forestry Academies there are several Japanese students. At the Royal Forest Academies at Tharandt, in Saxony, three of these students, very able men, are pursuing their studies in the theory and practice of forest culture.

In Prussia there are three grades of forest schools. The first two are preparatory, where pupils from 12 to 17 years of age receive an elementary education and practical instruction under the direction of a forester. There are two academies under the Department of the Minister of Agriculture. The term of study is two years, and the course embraces—Physics, including Meteorology and Mechanics; Chemistry, organic and inorganic; Mineralogy, Geognosy and Geology; Botany in all its phases; Zoology; Mathematics; general Political Economy; History and literature of forest affairs; Forest planting and preservation; Forest technology; Forest valuation; Wood measuring, survey and statistics; Forest administration; Jurisprudence; Prussian civil and penal code; Forest road construction; Game laws. A student, before he is admitted to these academies, must have a certificate that he has graduated at a Prussian technical school of the forest class, must have a good character, and be possessed of the necessary means to pursue his studies.

The only forest academy in France is at Nancy. It was founded in 1824. first it was an establishment of minor consideration, but great progress has taken place during the last sixty-five years, and it is at present in a high state of efficiency. The Director, the Inspector General of Forests, is aided by a staff of twelve professors. Admission to this school is obtained by competition. Candidates must be between the ages of 18 and 22 years. They must be in sound health, and hold certificates showing that they have completed their course of general studies at the Lycee (High School). The subjects in which they are required to pass at the entrance examination are as follows, viz.:—Arithmetic, elementary geometry, algebra, trigonometry, analytical geometry, descriptive geometry, natural philosophy, organic and inorganic chemistry, cosmography, mechanics, the German language, history, geography and plain drawing. The number of candidates admitted annually is about 18, and the course of study extends over two years. The time of study in each year comprises six and one-half months of theoretical and two and one-half months of practical instruction—one month being devoted to examination and two months to vacation. The school is well equipped in every way. The buildings are very extensive. There is a spacious amphitheatre, halls of study, a recreation room and an infirmary. The museum is very complete, and there is an excellent professional library containing about 4,000 volumes. There is also a complete chemical laboratory. Both Frenchmen and foreigners can obtain permission to follow the courses of the school as free students, without the payment of any fees. Among the free students who received education there were 73 Englishmen who had been sent there by the Secretary of State for India to be trained for the Indian forestry service under a special arrangement with the French Government. Ordinarily, the free students merely attend the lectures, and are not examined; but the English students have to pass all the examinations. There is a secondary or primary school at Barres, to prepare men for subordinate positions in the forest service.

Austria and Russia have each a free system of forestry education.

In Australia the Forestry Department, under the efficient management of John Ednie Brown, F.L.S., Conservator of Forests, is doing good work, and the results thus

far are very gratifying.

In conclusion, permit me respectfully to contrast what is being done in the Dominion and its several Provinces with what is being done in the rest of the civilized world. In the United States the Federal Government keeps up a permanent forestry staff; and the several States, particularly the prairie States, are expending large sums annually in forestry plantations. Australia, though a much younger country than ours, is earnestly at work looking after the re-plantation and preservation of her forests. All the great countries of the continent of Europe have thoroughly systematized the science of forestry, and in each of them it has become a source of considerable revenue to the State. In Canada alone the outlook is discouraging. In the older Provinces of the Dominion the destruction of our forests by fire and by the axe goes on with unabated fury and with painful disregard of the inevitable consequences in the near future. The chief sinners in this respect are the Provinces of New Brunswick, Quebec and Ontario. I would earnestly recommend that steps be taken to impress upon the people of the several Provinces the evil consequences which the destruction of the forests has wrought in other countries, and which,

in some cases, succeeding generations have striven in vain to repair. With us the greed of some and the indifference of all are tending to a similar result; and it is full time that the Dominion Government should sound the note of warning to the Provinces, and take vigorous action in the Territories which are under its immediate control.

I have the honor to be, Sir, Your obedient servant,

J. H. MORGAN,
Forestry Commissioner.



PART VII.

REPORT OF HALF-BREED COMMISSION.



PART VII.

REPORT OF HALF-BREED COMMISSION.

OTTAWA, 1st May, 1889.

To the Honorable
The Minister of the Interior,
Ottawa.

Sir,—I have the honor to report that immediately upon the completion, at Montreal Lake, on the 11th of February last, of the necessary negotiations which Lieutenant-Colonel Irvine and myself were authorized, by Order in Council of the 29th of November, 1888, to make with the different bands of Indians whose hunting grounds are situated in that portion of the North-West Territories lying between the northern boundary of Treaty No. 6 and the northern boundary of the Provisional District of Saskatchewan, and bounded on the east and west by the limits of the timber and land district of Prince Albert, for the surrender by the said Indians of the tract above described, I received, pursuant to the instructions to that effect contained in Departmental letter of the 18th of December last (Ref. 193515 on 138557), applications from Half-breeds to share in the grant of scrip authorized by sub-clause "F" of clause 90 Dominion Lands Act; and, under the powers vested in me by an Order in Council passed on the 14th of December, 1888, I issued scrip certificates to such of the applicants as established to my satisfaction that they were entitled thereto.

thereto.

At Montreal Lake, which place I left on the 14th of February to return to Prince Albert, I received thirty-six applications, twenty-two of which were made by the legal representatives of deceased Half-breeds, and I issued scrip certificates as follows:—

Form A, 2	Certificates	of \$160 each	\$320	00
do A, 12	do	of \$240 "	2,880	00
do B, 37	do	amounting to	3,144	44
_				
A and B, 51	do	amounting to	\$6,344	44

At Red Deer Lake one claim was presented which was allowed. In satisfaction thereof I issued a certificate on the Form A for \$240.

Prince Albert was reached on the 18th of February, at which place I remained until the 27th of the same month, when I started out for Green Lake, accompanied by Mr. A. J. McNeill, of the Duck Lake Indian Agency, and arrived at my destination on the 4th of March.

I granted at Green Lake and at the various points on the way thither, scrip certificates to such Half-breeds as had submitted the necessary evidence before the North-West Half-breed Commission in 1887, but whose claims were then reserved, as the claimants were residents on the 15th July, 1870, outside those portions of the Territories which have since been ceded by the Indians under treaty with the Government of Canada.

This was done under the authority above quoted, and in obedience to the further instructions contained in your telegram of the 25th of February, 1889, which reads as follows: "It has been decided to grant scrip to all Half-breeds who submitted satisfactory evidence in support of their claims, notwithstanding their residence in unceded territory at transfer. You may now proceed to Green Lake and deal with all those

cases in relation to which you have the evidence in your own possession. Remainder

will be dealt with from Department direct."

Of these claims seven heads of families and sixteen children, to whom I issued scrip certificates in satisfaction of their claims, to the value of \$4,960, were residing on the 15th July, 1870, within the tract recently surrendered by the Indians; and seven heads of families and fifteen children, to whom I also issued scrip certificates, amounting to \$4,720, were dealt with under the authority given me in your telegram of the 25th of February last, above referred to, which action has since been confirmed by Order in Council. (See Order in Council of 18th March, 1889).

I also received five new applications—two at Green Lake and three at Sandy

Lake—two of which I reserved, as the claimants were living on the 15th July, 1870,

in territory which has not yet been ceded by the Indians.

In satisfaction of these claims, twelve of which were preferred by persons who were previously in receipt of Indian annuities, I issued the following scrip certificates :--

Form A, 16	Certificates,	\$160	each		\$2,560	00
do A, 27		240	do		6,480	00
do B, 4	do	240	do		960	00
				-		
A and B, 47	do	amou	ıntin	g to	\$10,000	00

I left Green Lake on the 6th of March to again return to Prince Albert, which latter place I reached on the 10th of that month, and on the 16th of the same month I proceeded to Winnipeg, where I arrived on the 27th of March, having stopped, en route, at St. Laurent and Batoche.

In compliance with the request contained in your message of the 26th of March, 1889, I left Winnipeg for Ottawa on the 2nd of April, arriving here on the 5th.

At Prince Albert I issued the following scrip certificates:—

Form A, 2 (do B, 14	Certificates do	of \$240 each amounting	to\$ 480 00 to
A and B 16	cb	do	\$1,703 32

The two certificates on the form A, last referred to, were issued in satisfaction of claims which were reserved by the Commission in 1887, because the claimants were residing at the transfer in that portion of the Territories recently ceded by the Indians.

At Batoche one scrip certificate was issued on the form B for \$80.

Recapitulation	OI	scrip cerune	aves issued	on the forms A an	(L) (D):—	
Form A,	60	Certificates,	amounting	to	\$12,960	00
do B,	56	do	do	• • • • • • • • • • • • • • • • • • • •	5,407	72
_						
A and B 1	16	do	do		\$18.367	72

I received altogether evidence in support of fifty-six new claims:—

At	Montreal Lake	36
	Red Deer Lake	1
	Green Lake	2
	Shell River	
	Sandy Lake	
	Prince Albert.	
	Batoche	2
	m , 1	

Total......

The

е	nature of these claims may be classified as follows:—	
	Claims allowed of Half-breed heads of families	. 4
	Claims allowed of children of Half-breed heads of families	14
	Claims allowed of legal representatives of deceased Half-breed	
	heads of families	16
	Claims allowed of legal representatives of deceased children of	
	Half-breed heads of families	18
	Claims reserved, as claimants were residents on 15th July, 1870,	
	of those portions of the Territories which have not yet been	
	ceded by the Indians under treaty	2
	Claims requiring further evidence	1
	Claims disallowed, as claimants were residents on the 15th July,	
	1870, of the United States of America	1
		_
	Total	56

The fifty-six applications above referred to, which are herewith enclosed, have all been entered, and the decision arrived at in each case has been recorded in the

register of the North-West Half-breed Commission.

The applications which were reserved at Green Lake in October, 1887, by the North-West Half-breed Commission, and which accompanied Departmental letter of the 18th of December last, are also herewith enclosed, as well as the scrip certificate books referred to therein, and the application which was forwarded to me at Prince Albert under cover of letter of the 24th of January last. (Ref. 196342 on 167747). To each of these applications, where a certificate for scrip has been issued in

atisfaction thereof, a duplicate of such scrip certificate has been attached, and a remark to that effect has been made opposite the respective claim numbers in the

register of the North-West Half-breed Commission.

Five of the claimants, whose applications also accompanied Departmental letter of the 18th December last, already referred to, were absent when I visited the North, and scrip certificates were not, therefore, issued by me in satisfaction of their claims.

I have the honor to be, Sir, Your obedient servant,

R. GOULET.

Commissioner.



PART VIII.

EXPLORATORY SURVEY

OF PART OF THE

LEWES, TAT-ON-DUC, PORCUPINE, BELL, TROUT, PEEL, AND MACKENZIE RIVERS.

BY

WILLIAM OGILVIE, D.L.S. 1887-88.



EXPLORATORY SURVEY OF PART OF THE LEWES, TAT-ON-DUC, PORCUPINE, BELL, TROUT, PEEL, AND MACKENZIE RIVERS.

To the Honorable
The Minister of the Interior,
Ottawa.

OTTAWA, 16th July, 1889.

SIR,—I have the honor to submit the following report of my operations on the Lewes or Yukon River, in the season of 1887 (of which a preliminary sketch was published in the Annual Departmental Report for that year), and on the Tat-on-Duc, Porcupine, Bell, Trout, Peel and Mackenzie Rivers during the season of 1888.

I left Ottawa on the 20th of April, 1887, for Toronto, where I remained two days doing some preparatory work in the magnetic observatory having relation to the magnetic observations which I intended to make during the progress of my expedition, and also supervising some changes and repairs of instruments, the chief

object of which was to lessen their weight, and thus facilitate progress.

I had to stop one day in Winnipeg, to obtain an astronomical transit (F. O. 2). On the evening of the 2nd of May I reached Victoria, B. C., where I at once set about making the necessary preparations to start by the boat, which was advertised to leave on the 9th. The vessel did not arrive, however, until the 12th. I then found that she was much overloaded, and it was with some difficulty that I got Capt. Hunter to consent to take my outfit, which weighed in all about six tons, and, under the circumstances, it was a real act of kindness on his part to do so.

Owing to the heavy load, we made slow progress, and it was not until the 18th of May that we reached Fort Wrangell, at the mouth of the Stikine River. Here I parted from Dr. Dawson, whom I arranged to meet at the confluence of the Pelly and Lewes or Yukon River about the 20th of July following. We arrived at Juneau City on the evening of the 19th, remaining there and at Douglass Island until the evening of the 20th. At Douglass Island I had an opportunity of visiting the celebrated Treadwell gold mine and reduction works, containing one hundred and twenty stamps, which have since been doubled in number. The output of this mine, with the smaller number of stamps, was generally estimated at about \$70,000 per month, but no one seemed to know the exact amount.

As the boat was now much behind time she went direct to Sitka, instead of Chilkoot, as usual; thence in succession to Sitka, Killisnoo, Chilkat, and Chilkoot, where I landed on the morning of the 24th of May, and where my work began.

The first news I received on landing was that there was trouble in the interior, on the Lewes River, in the vicinity where I intended to go. A miner, who had recently arrived from the interior, stated that there had been a fight between the Indians and the miners at the mouth of Stewart River. The result of the affair, he alleged, was that four Indians and two white men had been killed, and that the Indians had come up the river as far as the cañon to lie in wait for any white men who might be going into the country. I did not have an opportunity of questioning him, as he had gone to Juneau City the day before I arrived. The rumor seemed to me somewhat improbable; but true or false, it was an unpleasant one to hear, and the only way to verify it was to go and see whether the Indians were hostile or not. Happily the whole story proved to be untrue, as I subsequently learned from the miners in the interior that he had difficulties with them, in consequence of which he was ordered in mid-winter to leave the region, which the miners consider equivalent to a sentence of death. Strange to say, he succeeded in getting out alive, making a distance of upwards of 500 miles of the most dangerous and difficult travelling. He started in the

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month of February, I think, and reached the coast in the month of May. It is reported that on his way out he had more trouble with an Indian whom he hired to accompany him. Another miner named Williams started from Stewart River for the coast in the month of December, carrying a message from Harper, McQuestion & Co., and mail from the miners. This man had the advantage at intervals of the assistance of the miners, a few of whom were scattered along the river in the vicinity of the Teslin-too (the Newberry of Schwatka). At the summit of the coast range he was detained by a snow storm for three days, and the hardships he suffered brought on pneumonia, from the effects of which he died.

It is said by those familiar with the locality that the storms which rage in the upper altitudes of the coast range, during the greater part of the time from October to March, are terrific. A man caught in one of them runs the risk of losing his life, unless he can reach shelter in a short time. During the summer there is nearly always a wind blowing from the sea, up Chatham Strait and Lynn Channel, which lie in almost a straight line with each other, and at the head of Lynn Channel are Chilkat and Chilkoot inlets. The distance from the coast down these channels to the open sea is about 380 miles. The mountains on each side of the water confine the currents of air, and deflect inclined currents in the direction of the axis of the channel, so that there is nearly always a strong wind blowing up the channel. Coming from the sea, this wind is heavily charged with moisture, which is precipitated when the air current strikes the mountains, and the fall of rain and snow is consequently very heavy.

In Chilkat Inlet there is not much shelter from the south wind, which renders it unsafe for ships calling there. Capt. Hunter told me he would rather visit any

other part of the coast than Chilkat.

After landing at Chilkoot the weather continued very wet for three days, so that I could not do anything in the way of commencing the survey, and during the delay myself and party were employed in making preparations for carrying the instruments, provisions and other baggage up to the head of Taiya Inlet, a distance of $20\frac{1}{2}$ miles. This was accomplished by securing the services of two boats belonging to a trader, which were towed to the head of the Taiya Inlet by the United States gunboat, "Pinta," to the commander of which (Capt. Newell) I owe a debt of gratitude for his very obliging and attentive treatment of myself and party.

SECTION I.

EXPLORATORY SURVEY from the Head of Taiya Inlet, through Taiya Pass, and down the Pelly-Yukon River to the International Boundary between Alaska and the North-West Territories of Canada.

On the 30th of May I commenced the survey by connecting Pyramid Island in Chilkat Inlet with Chilkoot Inlet at Haines mission. At this point a Protestant mission was established some years ago; but it is now abandoned, owing, as I was informed, to the very unpleasant conduct of the Chilkoot Indians. I could not learn that they had committed any overt act of hostility, but it appears the missionary tried to relieve the sufferings of a sick Indian child. Unfortunately, the child died, and the father attributed the death to the missionary, and from that time acted in so suspicious a manner towards the children of the latter that he considered it unsafe to remain in the vicinity, and moved into Juneau City.

The teacher of the United States Government school for Indians at Haines mission, Col. Ripinsky, told me he had got into trouble in the same way. A sick Indian to whom he administered medicine at first became much worse, in consequence, apparently, of the treatment, and during this time the patient's relatives walked about in an excited manner, manifesting very unpleasant signs of hostility. Fortunately the man finally recovered, but Col. Ripinsky has no doubt that his life

would not have been safe had he died.

The latitude and longitude of Pyramid Island were determined in 1869 by a United States Coast Survey party, who were sent out to observe the eclipse of the sun

PART VIII]

in the month of August of that year. The position then determined is given in the "Alaska Coast Pilot" as latitude 59° 11′ 43″·0, longitude 135° 27′ 04″·5. The longitude was determined by chronometers, thirteen having been used by the expedition. What point of the island was fixed I could not ascertain, so I took the centre. This island is pyramidal in form, as seen from the south-west or north-east, and about 500 yards long by 200 wide. It is composed of sand and clay, and rises about 80 feet above high tide, being evidently the result of glacial action. At low tide there is very little water on the north side of the island, and it is only a question of a few years until it will cease to be an island altogether, owing to the constant accumula-

tion of drift brought down by the streams flowing into the inlet.

To carry the survey from the island across to Chilkoot Inlet I had to get up on the mountains north of Haines mission, and from there could see both inlets. Owing to the bad weather I could get no observation for azimuth, and had to produce the survey from Pyramid Island to Taiya Inlet by reading the angles of deflection between the courses. At Taiya Inlet I got my first observation, and deduced the azimuth of my courses up that point. Taiva Inlet has evidently been the valley of a glacier; its sides are steep and smooth from glacial action; and this, with the wind almost constantly blowing landward, renders getting upon the shore difficult. Some long sights were therefore necessary. The survey was made up to the head of the inlet on the 2nd of June. Preparations were then commenced for taking the supplies and instruments over the coast range of mountains to the head of Lake Lyndeman on the Lewes River. Commander Newell kindly aided me in making arrangements with the Indians, and did all he could to induce them to be reasonable in their demands. This, however, neither he nor any one else could accomplish. They refused to carry to the lake for less than \$20 per hundred pounds, and as they had learned that the expedition was an English one, the second chief of the Chilkoot Indians recalled some memories of an old quarrel which the tribe had with the English many years ago, in which an uncle of his was killed, and he thought we should pay for the loss of his uncle by being charged an exorbitant price for our packing, of which he had the sole control. Commander Newell told him I had a permit from the Great Father at Washington to pass through his country safely, that he would see that I did so, and if the Indians interfered with me they would be punished for doing so. After much talk they consented to carry our stuff to the summit of the mountain for \$10 per hundred pounds. This is about two-thirds of the whole distance, includes all the climbing and all the woods, and is by far the most difficult part of the

On the 6th of June 120 Indians, men, women, and children, started for the summit. I sent two of my party with them to see the goods delivered at the place agreed upon. Each carrier when given a pack also got a ticket, on which was inscribed the contents of the pack, its weight, and the amount the individual was to get for carrying it. They were made to understand that they had to produce these tickets on delivering their packs, but were not told for what reason. As each pack was delivered one of my men receipted the ticket and returned it. The Indians did not seem to understand the import of this; a few of them pretended to have lost their tickets; and as they could not get paid without them, my assistant, who had duplicates of every ticket, furnished them with receipted copies after

examining their packs.

While they were packing to the summit I was producing the survey, and I met them on their return at the foot of the canon, about eight miles from the coast, where I paid them. They came to the camp in the early morning before I was up, and for about two hours there was quite a hubbub. When paying them I tried to get their names, but very few of them would give any Indian name, nearly all, after a little reflection, giving some common English name. My list contained little else than Jack, Tom, Joe, Charley, &c., some of which were duplicated three and four times. I then found why some of them had pretended to lose their tickets at the summit. Three or four who had thus acted presented themselves twice for payment, producing first the receipted ticket, afterwards the one they claimed to have lost,

demanding pay for both. They were much taken aback when they found that their

duplicity had been discovered.

These Indians are perfectly heartless. They will not render even the smallest aid to each other without payment; and if not to each other, much less to a white man. I got one of them, whom I had previously assisted with his pack, to take me and two of my party over a small creek in his canoe. After putting us across he asked for money, and I gave him half a dollar. Another man stepped up and demanded pay, stating that the canoe was his. To see what the result would be, I gave to him the same amount as to the first. Immediately there were three or four more claimants for the canoe. I dismissed them with a blessing, and made up my mind that I would wade the next creek.

While paying them I was a little apprehensive of trouble, for they insisted on crowding into my tent, and for myself and the four men who were with me to have attempted to eject them would have been to invite trouble. I am strongly of the opinion that these Indians would have been much more difficult to deal with if they had not known that Commander Newell remained in the inlet to see that I got

through without accident.

While making the survey from the head of tide water I took the azimuths and altitudes of several of the highest peaks around the head of the inlet, in order to locate them, and obtain an idea of the general height of the peaks in the coast range. As it does not appear to have been done before, I have taken the opportunity of naming all the peaks, the positions of which I fixed in the above way. The names

and altitudes appear on my map.

While going up from the head of canoe navigation on the Taiya River I took the angles of elevation of each station from the preceding one. I would have done this from tide water up, but found many of the courses so short and with so little increase in height that with the instrument I had it was inappreciable. From these angles I have computed the height of the summit of the Taiya Pass, above the head of canoe navigation, as it appeared to me in June, 1887, and find it to be 3,378 feet, What depth of snow there was I cannot say. The head of canoe navigation I estimate at about 120 feet above tide water. Dr. Dawson gives it as 124 feet.

While going over the range the first time I made frequent readings of the mercurial barometer, and left the instrument at the summit for several days, taking readings of it as often as possible. At the same time I took corresponding readings of my aneroid. These readings will be found in the appendix to this report, and from them it will be seen that this particular aneroid is almost as reliable as the mercurial barometer as far as the altitudes reached would show.

I determined the descent from the summit to Lake Lyndeman by carrying the aneroid from the lake to the summit and back again, the interval of time from start to return being about eight hours. Taking the mean of the readings at the lake, start and return, and the single reading at the summit, the height of the summit above the lake was found to be 1,237 feet. While making the survey from the summit down to the lake I took the angles of depression of each station from the preceding one, and from these angles I deduced the difference of height, which I found to be 1,354 feet, or 114 feet more than that found by the aneroid. This is quite a large difference; but when we consider the altitude of the place, the sudden changes of temperature, and the atmospheric conditions, it is not more than one might expect.

While at Juneau City I heard reports of a low pass from the head of Chilkoot Inlet to the head waters of Lewes River. During the time I was at the head of Taiya Inlet I made inquiries regarding it, and found that there was such a pass, but could learn nothing definite about it from either whites or Indians. As Capt. Moore, who accompanied me, was very anxious to go through it, and as the reports of the Taiya Pass indicated that no waggon road or railroad could ever be built through it, while the new pass appeared, from what little knowledge I could get of it, to be much lower, and possibly feasible for a waggon road, I determined to send the captain by that way, if I could get an Indian to accompany him. This, I found, would be difficult to

do. None of the Chilkoots appeared to know anything of the pass, and I concluded that they wished to keep its existence and condition a secret. The Tagish, or Stick Indians, as the interior Indians are locally called, are afraid to do anything in opposition to the wishes of the Chilkoots; so it was difficult to get any of them to join Capt. Moore; but after much talk and encouragement from the whites around, one of them named "Jim" was induced to go. He had been through this pass before, and proved reliable and useful. The information obtained from Capt. Moore's exploration I have incorporated in my plan of the survey from Taiya Inlet, but it is not as complete as I would have liked. I have named this pass "White Pass," in honor of the late Hon. Thos. White, Minister of the Interior, under whose authority the expedition was organized. Commencing at Taiya Inlet, about two miles south of its north end, it follows up the valley of the Shkagway River to its source, and thence down the valley of another river which Capt. Moore reported to empty into the Takone or Windy Arm of Bove Lake (Schwatka). Dr. Dawson says this stream empties into Tako Lake, and in that event Capt. Moore is mistaken. Capt. Moore did not go all the way through to the lake, but assumed from reports he heard from the miners and others that the stream flowed into Windy Arm, and this also was the idea of the Indian "Jim," from what I could gather from his remarks in broken English and Chinook. Captain Moore estimates the distance from tide water to the summit at about 18 miles, and from the summit to the lake at about 22 to 23 miles. He reports the pass as thickly timbered all the way through.

The timber line on the south side of the Taiya Pass, as determined by barometer readings, is about 2,300 feet above the sea, while on the north side it is about 1,000 feet below the summit. This large difference is due, I think, to the different conditions in the two places. On the south side the valley is narrow and deep, and the sun cannot produce its full effect. The snow also is much deeper there, owing to the quantity which drifts in from the surrounding mountains. On the north side the surface is sloping, and more exposed to the sun's rays. On the south side the timber is of the class peculiar to the coast, and on the north that peculiar to the interior. The latter would grow at a greater altitude than the coast timber. It is possible that the summit of White Pass is not higher than the timber line on the north of the Taiya Pass, or about 2,500 feet above tide water, and it is possibly even lower than this, as the timber in a valley such as the White Pass would hardly live at the same

altitude as on the open slope on the north side.

Capt. Moore has had considerable experience in building roads in mountainous countries. He considers that this would be an easy route for a waggon road compared with some roads he has seen in British Columbia. Assuming his distances to be correct, and the height of the pass to be probably about correctly indicated, the grades would not be very steep, and a railroad could easily be carried through if

necessary.

After completing the survey down to the lake I set about getting my baggage down, too. Of all the Indians who came to the summit with packs, only four or five could be induced to remain and pack down to the lake, although I was paying them at the rate of \$4 per hundred pounds. After one trip down, only two men remained, and they only in hopes of stealing something. One of them appropriated a pair of boots, and was much surprised to find that he had to pay for them on being settled with. I could not blame them much for not caring to work, as the weather was very disagreeable; it rained or snowed almost continuously. After the Indians left I tried to get down the stuff with the aid of my own men, but it was slavish and unhealthy labour, and after the first trip one of them was laid up with what appeared to be inflammatory rheumatism. The first time the party crossed the sun was shining brightly, and this brought on snow blindness, the pain of which only those who have suffered from this complaint can realize. I had two sleds with me which were made in Juneau City specially for the work of getting over the mountains and down the lakes on the ice. With these I succeeded in bringing about a ton and a-half to the lakes, but I found that the time it would take to get it all down in this way would seriously interfere with the programme arranged with Dr. Dawson, to say nothing

of the suffering of the men and myself, and the liability to sickness which protracted physical exertion under such uncomfortable conditions and continued suffering from snow blindness expose us to. I had with me a white man who lived at the head of the inlet with a Tagish Indian woman. This man had a good deal of influence with the Tagish tribe, of whom the greater number were then in the neighbourhood where he resided trying to get some odd jobs of work, and I sent him to the head of the inlet to try and induce the Tagish Indians to undertake the transportation, offering them \$5 per hundred pounds. In the meantime Capt. Moore and the Indian "Jim" had rejoined me. I had their assistance for a day or two, and "Jim's "presence aided indi-

rectly in inducing the Indians to come to my relief. The Tagish are little more than slaves to the more powerful coast tribes, and are in constant dread of offending them in any way. One of the privileges which the coast tribes claim is the exclusive right to all work on the coast or in its vicinity, and the Tagish are afraid to dispute this claim. When my white man asked the Tagish to come over and pack they objected on the grounds mentioned. After considerable ridicule of their cowardice, and explanation of the fact that they had the exclusive right to all work in their own country, the country on the north side of the coast range being admitted by the coast Indians to belong to the Tagish tribe, just as the coast tribes had the privilege of doing all the work on the coast side of the mountains, and that one of their number was already working with me unmolested, and likely to continue so, nine of them came over, and in fear and trembling began to pack down to the lake. After they were at work for a few days some of the Chilkoots came out and also started to work. Soon I had quite a number at work and was getting my stuff down quite fast. But this good fortune was not to continue. Owing to the prevailing wet, cold weather on the mountains, and the difficulty of getting through the soft wet snow, the Indians soon began to quit work for a day or two at a time, and to gamble with one another for the wages already earned. Many of them wanted to be paid in full, but this I positively refused, knowing that to do so was to have them all apply for their earnings and leave me until necessity compelled them to go to work again. I once for all made them distinctly understand that I would not pay any of them until the whole of the stuff was down. As many of them had already earned from twelve to fifteen dollars each, to lose which was a serious matter to them, they reluctantly resumed work and kept at it until all was delivered. This done, I paid them off, and set about getting my outfit across the lake, which I did with my own party and the two Peterborough canoes which I had with me.

A word or two about these canoes may not be out of place. They were made by the Ontario Canoe Company, of Peterborough. Both were of special make and somewhat outside of the company's usual style of build. One was 18 feet long, the other 19—both 40 inch beam and 18 inches deep. They were built of basswood, the bottom planks being \(^3\) inch thick and the sides \(^1\) inch. They were extra strong, and higher at the bow and stern than the usual make. When dry they weighed about 140 pounds each, so that two men could without much difficulty carry them. They would each hold two men and 1,400 pounds without being at all overloaded, and could with ease be then driven 4 to \(^1\) miles per hour. I had them furnished with movable canvas decks, which could be fitted on, and made the canoe almost water-tight. These two canoes travelled about 3,000 miles by rail and about 1,000 miles by steamship before being brought into service. They did considerable work on Chilkoot and Taiya Inlets, and were then packed over to the head of Lewes River (Lake Lyndeman), from where they were used in making the survey of Lewes River. In this work they made about 650 landings. They were then transported on sleighs from the boundary on Lewes River to navigable water on the Porcupine.

In the spring of 1888 they descended the latter, heavily loaded, and through much rough water, to the mouth of Bell's River, and up it to McDougall's Pass. They were then carried over the pass to Poplar River and were used in going down the latter to Peel's River, and thence up Mackenzie River 1,400 miles; or, exclusive of railway and ship carriage, they were carried about 170 miles and did about 2,500

miles of work for the expedition, making in all about 1,700 landings in no easy manner and going through some very bad water. I left them at Fort Chipewyan in fairly good condition, and, with a little painting, they would go through the same ordeal again.

After getting all my outfit over to the foot of Lake Lyndeman I set some of the party to pack it to the head of Bennet Lake. The stream between these two lakes is too shallow and rough to permit of canoe navigation, and every thing had to be

portaged the greater part of the way.

I employed the rest of the party in looking for timber to build a boat to carry my outfit of provisions and implements down the river to the vicinity of the International Boundary, a distance of about 700 miles. It took several days to find a tree large enough to make plank for the boat I wanted, as the timber around the upper end of the lake is small and scrubby. My boat was finished on the evening of the 11th of July, and on the 12th I started a portion of the party to load up the large boat, and go ahead with it and the outfit to the cañon. They had instructions to examine the cañon and, if necessary, to carry a part of the outfit past it—in any case, enough to support the party back to the coast should accident necessitate such procedure. With the rest of the party I started to carry on the survey, which may now be said to have fairly started ahead on the lakes. This proved tedious work, on account of the stormy weather.

In the summer months there is nearly always a wind blowing in from the coast; it blows down the lakes and produces quite a heavy swell. This would not prevent the canoes going with the decks on, but, as we had to land every mile or so, the rollers breaking on the generally flat beach proved very troublesome. On this account I found I could not average more than ten miles per day on the lakes, little

more than half of what could be done on the river.

The survey was completed to the cañon on the 20th of July. There I found the party with the large boat had arrived on the 18th, having carried a part of the supplies past the cañon, and were awaiting my arrival to run through it with the rest in the boat. Before doing so, however, I made an examination of the cañon. The rapids below it, particularly the last rapid of the series (called the White Horse by the miners), I found would not be safe to run. I sent two men through the cañon in one of the canoes to await the arrival of the boat, and to be ready in case of an accident to pick us up. Every man in the party was supplied with a life-preserver, so that should a casualty occur we would all have floated. Those in the canoe got through all right; but they would not have liked to repeat the trip. They said the canoe jumped about a great deal more than they thought it would, and I had the same experience when going through in the boat.

The passage through is made in about three minutes, or at the rate of about 12½ miles an hour. If the boat is kept clear of the sides there is not much danger in high water; but in low water there is a rock in the middle of the channel, near the upper end of the cañon, that renders the passage more difficult. I did not see this rock myself, but got my information from some miners I met in the interior, who described it as being about 150 yards down from the head and a little to the west of the middle of the channel. In low water it barely projects above the surface. When I passed through there was no indication of it, either from the bank

above or from the boat.

The distance from the head to the foot of the canon is five-eighths of a mile. There is a basin about midway in it about 150 yards in diameter. This basin is circular in form, with steep sloping sides, about 100 feet high. The lower part of the canon is much rougher to run through than the upper part, the fall being apparently much greater. The sides are generally perpendicular, about 80 to 100 feet high, and consist of basalt, in some places showing hexagonal columns

The "White Horse" Rapids are about three-eighths of a mile long. They are the most dangerous rapids on the river, and are never run through in boats except by accident. They are confined by low basaltic banks, which, at the foot, suddenly close in and make the channel about 30 yards wide. It is here the danger lies, as

there is a sudden drop and the water rushes through at a tremendous rate, leaping and seething like a cataract. The miners have constructed a portage road on the west side, and put down rollways in some places, on which to shove their boats over. They have also made some windlasses with which to haul their boats up hill, notably one at the foot of the canon. This roadway and the windlasses must have cost them many hours of hard labor. Should it ever be necessary, a tramway could be built past the canon on the east side with no great difficulty. With the exception of the "Five Fingers Rapid" (the Rink Rapid of Schwatka), it appears this is the only serious rapid on the whole length of the river.

Rink Rapid is formed by several islands standing in the channel and backing up the water so much as to raise it about a foot, causing a swell below for a few yards. The islands are composed of conglomerate rock, similar to the cliffs on each side of the river, whence one would infer that there has been a fall here in past ages. For about two miles below the rapid there is a pretty swift current, but not enough to prevent the ascent of a steamboat of moderate power, and the rapids themselves I do not think would present any serious obstacle to the ascent of a good boat. In very high water warping might be required. Six miles below these rapids are what are known as "Little Rapids." This is simply a barrier of rocks, which extends from the westerly side of the river, about half way across. Over this barrier there is a ripple which would offer no great obstacle to the descent of a good canoe. On the easterly side there is no ripple, and the current is smooth and the water apparently deep. I tried with a 6 foot paddle, but could not reach the bottom.

On the 11th of August I met a party of miners coming out who had passed Stewart River a few days before. They saw no sign of Dr. Dawson having been there. This was welcome news for me, as I expected he would have reached that point long before I arrived, on account of the many delays I had met with on the coast range. These miners also gave me the pleasant news that the story told at the coast about the fight with the Indians at Stewart River was false, and stated substantially what I have already repeated concerning it. The same evening I met more miners on their way out, and the next day met three boats, each containing four men. In the crew of one of them was a son of Capt. Moore, from whom the captain got such information as induced him to turn back and accompany them out.

Next day, the 13th, I got to the mouth of the Pelly, and found that Dr. Dawson had arrived there on the 11th. The doctor also had experienced many delays, and had heard the same story of the Indian uprising in the interior. I was pleased to find that he was in no immediate want of provisions, the fear of which had caused me a great deal of uneasiness on the way down the river, as it was arranged between us in Victoria that I was to take with me provisions for his party to do them until their return to the coast. 'The doctor was so much behind the time arranged to meet me that he determined to start for the coast at once. I therefore set about making a short report and plan of my survey to this point; and, as I was not likely to get another opportunity of writing at such length for a year, I applied myself to a correspondence designed to satisfy my friends and acquaintances for the ensuing

welve months. This necessitated three days' hard work.

On the morning of the 17th the doctor left for the outside world, leaving me with a feeling of loneliness that only those who have experienced it can realize. I remained at the mouth of the Pelly during the next day taking magnetic and astronomical observations, and making some measurements of the river. On the 19th I resumed the survey, and reached White River on the 25th. Here I spent most of a day trying to ascend this river, but found it impracticable, on account of the swift current and shallow and very muddy water. The water is so muddy that it is impossible to see through one-eighth of an inch of it. The current is very strong, probably eight miles or more per hour, and the numerous bars in the bed are constantly changing place. After trying for several hours, the base men succeeded in doing about half a mile only, and I came to the conclusion that it was useless to try to get up this stream to the Boundary with canoes. Had it proved feasible I

had intended making a survey of this stream, to the Boundary, to discover more especially the facilities it offered for the transport of supplies in the event of a

survey of the International Boundary being undertaken.

I reached Stewart River on the 26th. Here I remained a day taking magnetic observations, and getting information from a miner, named McDonald, about the country up that river. McDonald had spent the summer up the river prospecting and exploring. His information will be given in detail further on.

Fort Reliance was reached on the 1st of September, and Forty-Mile River (Cone-Hill River of Schwatka) on the 7th. In the interval between Fort Reliance and

Forty-Mile River there were several days lost by rain.

At Forty-Mile River I made some arrangements with the traders there (Messrs. Harper & McQuestion) about supplies during the winter, and about getting Indians to assist me in crossing from the Pelly or Yukon to the head of the Porcupine, or perhaps on to the Peel River. I then made a survey of the Forty-Mile River up to the cañon. I found the cañon would be difficult of ascent, and dangerous to descend, and, therefore, concluded to defer further operations until the winter, and until after I had determined the longitude of my winter post near the boundary, when I would be in a much better position to locate the intersection of the International Boundary with this river, a point important to determine on account of the number and richness of the mining claims on the river.

I left Forty-Mile River for the boundary line between Alaska and the North-West Territories on the 12th September, and finished the survey to that point on the 14th. I then spent two days in examining the valley of the river in the vicinity of the boundary to get the most extensive view of the horizon possible, and to find a tree large enough to serve for a transit stand.

Before leaving Toronto I got Mr. Foster to make large brass plates with V's on them, which could be screwed firmly to a stump, and thus be made to serve as a transit stand. I required a stump at least 22 inches in diameter to make a base large enough for the plates when properly placed for the transit. In a search which covered about four miles of the river bank, on both sides, I found only one tree as large as 18 inches. I mention this fact to give an idea of the size of the trees along the river in this vicinity. I had this stump enlarged by firmly fixing pieces on the sides so as to bring it up to the requisite size. This done, I built around the stump a small transit house of the ordinary form and then mounted and adjusted my transit. Meanwhile, most of the party were busy preparing our winter quarters and building a magnetic observatory. As I had been led to expect extremely low temperatures during the winter, I adopted precautionary measures, so as to be as comfortable as circumstances would permit during our stay there.

A few remarks descriptive of our residence may not be uninteresting.

After clearing away the top soil and excavating some distance into the side of the hill for a foundation, the bottom round of the house was laid and imbedded in the place so cleared; the next round of logs was then put up and fitted in place; it was then rolled off, and on top of the first round was laid a thick layer of moss; the second round of logs was then put back in its place on top of the moss, which was so thick that the second round did not lie on the saddles at the corners, but rode on the moss. This was done with each succeeding round until the requisite height was reached, when the ordinary kind of shanty roof, consisting of poles, was put on. On these was laid a layer of moss about one foot thick, and on this about one foot of clay. In the roof were two ventilators, which could be closed altogether if necessary.

To heat the building a large stone furnace was built, in size 3 by 8 ft.; the front end of this was fashioned into a fireplace, with oven on top for cooking; the other end was formed into a chimney. The structure was a large mass of stones bound together by a tough white clay, which we found in the vicinity, and which baked hard and white, and did not crack with the heat. When this mass was once heated, which it took two days to do, it retained the heat for a long time.

With the weight of the roof and walls the moss between the logs was so pressed that it filled every crevice and almost made a solid wall. During the winter the ventilators were kept open all the time; yet the lowest temperature observed in the house during our stay was 48° Fahrenheit; the average in the morning before the fire was lighted was about 60° Fahrenheit.

After finishing our building I mounted a declinometer and bifilar which were given me by Mr. Carpmael, Director of the Meteorological Service of Canada, and

continued regular observations with them until I left for Porcupine River.

Astronomical Determinations of the Latitude and Longitude at Observatory on the Pelly-Yukon during Winter of 1887-88.

I found the levels furnished for use with the astronomical transit, as made by Fauth, to be useless. Instead of being sealed hermetically they were sealed by a plate bevelled into each end with a ground joint, this plate being cemented in. During the summer the cement softened and allowed the contents to run out. Early in the season I had noticed one of them leaking; I then took every possible precaution to save the other one, but without avail, as they were both empty when I wanted to use them. Fortunately, I had some pure alcohol with me for preserving specimens in; with this I refilled one of the tubes, and as I also had some rubber corks, one of which fortunately fitted the bore of the tubes, I cut it in two, and

stopped the ends with it. I found this to answer the purpose very well.

Before commencing work with this level I made a determination of the value in arc of its divisions. This I did by setting it on a bar about 12 feet long, on each end of which a metal plate was fixed. In one of these plates a fine slit was made, which was rested on the edge of a knife fixed in a stump; the other plate was placed on the end of a micrometer screw, reading to '0001 of an inch; the bubble was made to traverse the length of its run several times by turning the screw; the difference of height of the movable end was known from the readings of the micrometer, and from the known length of the bar; the angle moved through was easily deduced. I made the first determination when the temperature was 28° Fah. Three determination were made and the mean used as the true value; the three stood as follows, expressed in seconds of arc: 1st, 2"08; 2nd, 1"98; 3rd, 2"03; mean, 2"03. A careful determination made in the same way when the temperature was 41° below zero gave the value in arc 2"41. I interpolated between these values for the different temperatures at the time of the observations.

The reflecting telescope intended for the observation of occultations of stars by the moon having got out of order, owing, I suppose, to the continued damp, cool weather during the season, I had to fit up a tourist's telescope to take its place. Unfortunately of all the occultations arranged for with Mr. King before leaving Ottawa, through the two lunations of October-November and November-December,

of which about sixty would occur here, none were observed.

Soon after getting my transit mounted and adjusted I got a culmination of the moon on the 29th September. I intended this as a check on the survey, and as a basis for the computation of the times of the occultations; but I did not see the moon, nor a star again until November, after both lunations of the programme were over. I then computed a lot of occultations in the next lunation, but was as unfortunate

with them as with the others.

In order to get all the data possible to determine the longitude of my observatory I took every moon culmination I could get all through the months of November, December, January and a part of February. To make these as accurate as possible, I observed the following method. A list of stars were selected succeeding each other in right ascension, at intervals of four or five minutes as nearly as possible, and containing ten stars. Their position was such that the moon transited about midway in the group. The list contained, when possible, four moon-culminating stars, two polar stars, and four stars near the zenith. The first half of the group was observed [PART VIII]

with the transit clamp east, the transit of the moon's limb was then observed, the telescope then turned clamp west and the other half of the stars observed. From the star transits were deduced, by the method of "least squares," the correction to the time of the passage of the moon's limb, and the azimuth and collimation errors of the transit. The collimation and azimuth error were applied with their proper sign to the moon at its transit; thus the right ascension of the moon was known for the place, and from the Ephemeris right ascension at its transit at Washington, or the right ascension at its upper and lower transit at Greenwich, the longitude of the observatory was deduced.

I found the azimuth of the transit remain very steady during the mild weather in the fall; but when the cold weather set in, and especially during one severe spell, it was very unsteady, though, perhaps, not more so than the ordinary form of transit stand would have been. Many of the observations were taken when the thermometer was 40 to 50 degrees below zero, and it must be confessed that such a degree of

cold would try any kind of stand.

It is not to be supposed that the same variation would be found in every other stump that was found in the one upon which my transit was mounted, but it may be of interest to note that the variation of azimuth always had the same direction with a decrease of temperature, and that the direction was reversed when the temperature rose. Another result of a decrease of temperature was the contraction of the stump-stand, which necessitated replacing of the brass plates. With a decrease of temperature the level also changed, but always in a constant direction, which was reversed when the temperature changed again, so that at the same temperature the level reading would be the same. I found the change of level so great that it would in the course of a day run the bubble out of sight, and necessitate a readjustment of both level and azimuth. It is not certain that this variation arose from change in the stump, but it was most probably due to changes in the ground around it; so that the stump was probably as good a stand as I could have had, and saved the carriage of about two hundred pounds into the country and out again. Of all the occultations computed (about one hundred) only three were observed. These are given further on.

I here insert a table of the results of the moon culminations I observed at my observatory. All the culminations observed in 1887 were computed from the British Ephemeris by using the right ascension of the moon's bright limb at upper and lower transit at Greenwich. All culminations observed in 1888 were computed from the American Ephemeris, by using the moon's right ascension at meridian passage at Washington. These were occasionally checked by computing from the hourly Ephemeris. I give date of observation, the number of stars observed, the deduced right ascension of the moon's bright limb, and the resulting longitude, for the purpose of comparison, first giving the observations taken on the moon's bright limb

when crescent, following with those taken when it was waning:

Observations on 1st Limb.

		No. of Stars.	Deduced R. A. of Moon's Limb. h. m. s.	Deduced Longitude in Time. h. m. s.			
Sept. 29.	1887	7	23 14 59.47	9 23 35.89			
Nov. 23	"	9	23 30 40.62	" 24·19			
" 25		10	1 02 24:39	" 26.61			
Dec. 21	"	5	23 59 02.65	" 28.02			
" 22	"	6	0 44 59.11	" 23.73			
" 2 3		8	1 30 39.34	" 21.54			
" 27		6	4 46 14.33	" 27.32			
" 29		8	6 37 24.78	" 33·16			
Jan. 18,	1888	8	0 25 46.91	" 29·15			
" 20	"	8	1 57 41.35	" 30.19			
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Date.	No. of Stars.	No. of Deduced R. A. of Stars. Moon's Limb.			Deduced Longitude iu Time.		
		h.	m.	8.	h.	m.	s.
Jan. 21, 1888	8	2	44	25.21	9	23	27.50
	9	4	23	12.90	"	"	37.72
" 26, "	8	7	09	44.15	"	"	30.92
Feb. 23, "	8	7	39	49.33	"	66	32.68
,	Mear	ı			9	23	29.47
Probable error of mean							3.01s.

It would be a waste of time to sum these by weights, having regard to the moon's rate of motion, the number of stars observed, and the probable error of each night's work, as the accuracy of the result depends mainly on the accuracy of the observed transit of the moon's limb. This could be deduced from the observations themselves, but as I had not time when observing to do this, and have not done it since, I do not consider it worth the time to do it now, as it would affect the mean result very little.

Observations on 2nd Limb.

Date.		No. of Stars.			Lon	Deduced Longitude in Time.		
			h.	m.	s.	h.	m.	8.
Nov. 30,	1887	3				9	23	40.42
Dec. 1,	"	8	6	04	00.16	"	66	44.18
" 2,	"	6	7	00	27.73	"	66	52.24
" 3,		7	7	57	27.54	"	66	46.07
" 6,		7	10	46	19.81	"	"	39.96
" 7,		4	11	41	28.83	"	"	45.44
" 29,	"	8	6	39	41.95	"	"	39.70
Jan. 31,	1888	8	12	02	21.99	"	66	44.87
ĺ		Me	an			9	23	44.11
	Probable error of mean						2·81s	

The mean of both is 9h. 23m. 36.79s. in time, or in arc 140° 54′ 11″.8, west of Greenwich. It will be noticed that on the 29th December both limbs of the moon were observed. The moon arrived at opposition that evening a little more than an hour before it transited at my station, so that it was sensibly full on both limbs at the time of my observation. The mean of the longitudes deduced from that night's work agrees very closely with the mean of the two series.

It would seem from the result that in the case of the first limb I anticipate contact of the limb with the wire, and in the case of the second limb I am tardy. may judge of the relative value of the separate determinations by my nervous condition at the time of observation, I would give that on the first limb the greater weight, as those observations were taken early in the evening, when my system was in its normal condition; but when observing on the second limb it was much later and I was somewhat wearied and drowsy, there being not enough of the work, nor its regularity sufficient, to accustom me thoroughly to it.

Three occultations were observed; I did not compute the longitude from them,

as I had not time. But I always made the preparatory computation twice over, and sometimes three times, so that I had the time of occultation very close, for the longitude used in the computation (9h. 23m. 36s.). I found the computed and the observed time so nearly the same that it was probable the difference was chiefly due to personal error in observation. I was therefore not so anxious to deduce the longitude from them as I otherwise would have been. Mr. W. F. King, Chief Inspector of Surveys, has computed the longitude from one of the occultations, the result of which I give.

December 5, 1887—Occultation of Alpha Leonis. Chronometer time of immersion 1h. 27m. 12.6s. Emersion not visible. Chronometer fast 9h. 31m. 42.51s.

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This occultation was observed in daylight near the horizon, and with a small telescope, so it cannot be called good.

January 23, 1888-Occultation of 75 Tauri. Chronometer time of immersion 12h.

4m. 16·25s. Emersion not visible. Chronometer fast 9h. 33m. 23·42s. January 23, 1888—Occultation of Alpha Tauri. Chronometer time of immersion 16h. 31m. 07.55s. Emersion 17h. 18m. 49.35s. Chronometer fast for immersion

9h. 33m. 23.81s.; for emersion 9h. 33m. 23.87s.

Mr. King's longitudes in time, computed from the times of immersion and emersion of the last star, are respectively 9h. 23m. 45.28s., and 9h. 24m. 11.22s. In the case of this occultation the immersion was by the moon's dark limb, and there was no difficulty in observing it, but my telescope was much too small to show when the star emerged from the moon's bright limb, and the emersion was not noted until the star stood out clear from the moon, probably a second or more too late, the

effect of which would be to make the resulting longitude too great.

I determined the latitude of a point 60 feet north of my transit stand by setting up very carefully my 4-inch transit in the prime vertical. To insure all possible steadiness I suspended heavy weights from the tension screw of the instrument, so that the foot screws and the rest of the instrument were almost as rigid as if solid. By several trials I very carefully determined the value of a division of the striding level of the instrument, and found it to be 20", and it was sensitive enough to plainly show one-fourth of this, and less than that could be estimated. I used on the telescope the eye-piece of the astronomical transit, which gave me power enough to see distinctly when a star crossed the wires, and yet was not too powerful for proper definition. I used three wires in the telescope, of which the aperture was 1 inch and the focal length 10 inches. I had a reference object fixed west of the instrument about half a mile, consisting of a box with an inch and a half slit in one side of it, which was covered with a piece of white cotton. In the box was placed a candle, the light of which shone through the cotton in the slit, presenting a bright clear mark, without any radiation of light. Just before observing a star transit the instrument was carefully levelled, then pointed on the R.O. and then on the star, and the passage over the wires observed; the level was then read, and the telescope again pointed to the R.O. to see that no movement had taken place in the interval.

On the 24th of October, 1887, I observed the following prime vertical transits of stars east and west of the meridian; η Draconis, west transit, circle south; η Cephei, east transit, circle north. 36 Draconis, west transit, circle north. The chronometer error was determined by a few star transits. When clouds prevented further observations that night, the latitude deduced from the several transits stood

as follows :-

η Draconis 64° 40′ 57″·2. η Cephei 64° 40′ 57″·4. 36 Draconis 64° 40′ 58".4.

Mean of all 64° 40′ 57".7.

January 26, 1888 —I got both east and west transits of € Cassiopeæ, but the sky was hazy, and the thermometer was-30°, so that the observation cannot be

considered good. The latitude deduced from it was 64° 41′ 06".4.

January 3, 1888, and February 27 and 28.—I observed, with the dip circle, for magnetic dip, total force, and declination. The values of these at the place will be appended to this report, as will the readings of the declinometer furnished by Mr. Carpmael, Director of the Meteorological Service of Canada. This was read twice a day, the times being those when the needle was at its greatest eastern and western variation for the day. These times were determined by observing its position every hour for about ten days, and were found to be respectively 7h. 30m. a.m., and 1h. 30m. p.m.

The weather throughout the winter was unusually stormy and snowy, which seriously interfered with the arrangements made before I left Ottawa, In fact it might be said it altogether set them aside; still, the observations I was able to get

will give a fair approximation to the longitude of the observatory, the probable error of the result of all being about three seconds of time, or in land measure about 30 chains, or three-eighths of a mile.

Survey of Forty Mile River, from its Mouth to the International Boundary Line.

After computing the longitude from all the observations I had got up to the 1st February, I took two of my men and my instruments, and started for Forty-Mile River to continue the survey up the same to the International Boundary. After three days tiresome marching through the deep, soft snow, I reached the mouth of Forty-Mile River. Here I remained two days resting and preparing to continue the survey up the river. On the 9th of February I started with the survey from where I had left it in the summer, as already mentioned.

During the progress of this work the weather was cold, and as the days were only four or five hours long the progress was necessarily slow, so that I did not complete the survey to the Boundary until the 12th. The distance from the mouth of the Forty-Mile River up it to the Boundary is, by the river, twenty-three miles. I marked the intersection of the river by the Boundary by blazing trees on both sides and marking on some of the trees the letters "A" and "C" on the west and east sides

respectively, for Alaska and Canada.

The natural features of the ground here afford also a good mark. On the north side of the river two small creeks fall into Forty-Mile River, almost together, and between them there is a sharp rocky mound about 150 feet high. This mound stands where the boundary crosses the river, and from this point one can see northwards up the valleys of the creeks for several miles. This is the first place on the river where such a distant view can be had.

I returned to the post at the mouth of the river, and spent two days with the

traders Harper and McQuestion and the miners who were camped around.

Harper, McQuestion & Co., moved from Stewart River down to this point in the spring of 1887, so as to be where most of the miners were located. On Forty-Mile River, in the season of 1886, coarse gold was found, the first discovered on the Lewes or any of its tributaries. Coarse gold is the desideratum of all gold miners, and as soon as the news of the discovery spread to the other mining camps, where nothing but fine or dust gold had yet been found, they all repaired to the coarse gold diggings on Forty-Mile.

About one hundred miners wintered in the country, most of whom camped at Forty-Mile. A few wintered down at the old trading post built by F. Mercier, and named by him Belle Isle. This post is where Lieut. Schwatka located the International Boundary, but it is about twelve miles below the Boundary by my survey

and observations.

When I was at Forty-Mile River the miners were very anxious to see me, and to know our mining regulations and laws. I explained everything they inquired about as fully as my knowledge and the documents as my disposal would permit. Many of them who were used to the United States system of each mining community making its own by-laws, based on the general mining law of the country, and electing their own recorder to attend to the regulations and see them carried out, thought some of our regulations rather stringent and hard. I heard their statements and answered such of them as I could, and also promised to lay their views before the Department. This I have already done in a report sent by me in the spring of 1888. As this report is of purely administrative import, it is not necessary to quote it here.

During the winter there were many cases of sickness at Forty-Mile, most of them of scurvy. There were three deaths, only one of which was due to scurvy.

I returned to my quarters on the 17th February, and immediately set the party at work drawing the canoes and instruments, and about four months provisions down to Belle Isle, about fifteen miles down the river from my house. This was to be our starting point for the Mackenzie River.

16 PART VIII

SECTION 2.

Description of the Pelly-Yukon, its Affluent Streams, and the Adjacent Country.

I will now give, from my own observation and from information received, a more detailed description of the Lewes River, its affluent streams, and the resources of the adjacent country.

For the purposes of navigation a description of the Lewes River begins at the head of Lake Bennet. Above that point, and between it and Lake Lyndeman, there is only about three-quarters of a mile of river, which is not more than 50 or 60 yards wide, and 2 or 3 feet deep, and is so swift and rough that navigation is out

of the question.

Lake Lyndeman is about five miles long and half a mile wide. It is deep enough for all ordinary purposes. Lake Bennet is twenty-six and a-quarter miles long, the upper fourteen of which are about half a mile wide. About midway in its length an arm comes in from the west which Schwatka appears to have mistaken for a river, and named Wheaton River. This arm is wider than the other arm down to that point, and is reported by Indians to be longer and heading in a glacier which lies in the pass at the head of Chilkoot Inlet. This arm is, as far as seen, surrounded by high mountains, apparently much higher than those on the arm we travelled down. Below the junction of the two arms the lake is about one and a half miles wide, with deep water. Above the forks the water of the east branch is muddy. This is caused by the streams from the numerous glaciers on the head of the tributaries of Lake Lyndeman.

A stream which flows into Lake Bennet at the south-west corner is also very dirty, and has shoaled quite a large portion of the lake at its mouth. The beach at the lower end of this lake is comparatively flat and the water shoal. A deep, wide valley extends northwards from the north end of the lake, apparently reaching to the canon, or a short distance above it. This may have been originally a course for the waters of the river. The bottom of the valley is wide and sandy, and covered with scrubby timber, principally poplar and pitch-pine. The waters of the lake empty at the extreme north-east angle through a channel not more than one hundred yards wide, which soon expands into what Schwatka called Lake Nares. Through this narrow channel there is quite a current, and more than 7 feet of water, as a 6 foot paddle and a foot of arm added to its length did not reach the bottom.

The hills at the upper end of Lake Lyndeman rise abruptly from the water's

edge. At the lower end they are neither so steep nor so high.

Lake Nares is only two and a half miles long, and its greatest width is about a mile: the water is not deep, but it is navigable for boats drawing 5 or 6 feet of water It is separated from Lake Bennet by a shallow sandy point of not more than 200 vards in length.

No streams of any consequence empty into either of these lakes. A small river flows into Lake Bennet on the west side a short distance north of the fork, and another at the extreme north-west angle, but neither of them are of any consequence in a navigable sense. The former seems to be what Schwatka referred to as Wheaton

River

Lake Nares flows through a narrow curved channel into Bove Lake (Schwatka). This channel is not more than 600 or 700 yards long, and the water in it appears to be sufficiently deep for boats that could navigate the lake. The land between the lakes along this channel is low, swampy, and covered with willows, and, at the stage in which I saw it, did not not rise more than 3 feet above the water. The hills on the south-west side slope up easily, and are not high; on the north side the deep valley already referred to borders it; and on the east side the mountains rise abruptly from the lake shore.

Bove Lake (called Tagish Lake by Dr. Dawson) is about a mile wide for the first two miles of its length, when it is joined by what the miners have called the Windy Arm. One of the Tagish Indians informed me they called it Takone Lake. Here the lake expands to a width of about two miles for a distance of some three

miles, when it suddenly narrows to about half a mile for a distance of a little over a mile, after which it widens again to about a mile and a-half or more.

Ten miles from the head of the lake it is joined by the Tako Arm from the south. This arm must be of considerable length, as it can be seen for a long distance, and its valley can be traced through the mountains much farther than the lake itself can be seen. It is apparently over a mile wide at its mouth or junction.

Dr. Dawson seems to include Bove Lake and these two arms under the common name of Tagish Lake. This is much more simple and comprehensive than the various names given them by travellers. These waters collectively are the fishing and hunting grounds of the Tagish Indians, and as they are really one body of water, there is no reason why they should not be all included under one name.

From the junction with the Tako Arm to the north end of the lake the distance is about six miles, the greater part being over two miles wide. The west side is very flat and shallow, so much so that it was impossible in many places to get our canoes to the shore, and quite a distance out in the lake there was not more than 5 feet of water. The members of my party, who were in charge of the large boat and outfit, went down the east side of the lake and reported the depth about the same as I found on the west side, with many large rocks. They passed through it in the night in a rain storm, and were much alarmed for the safety of the boat and provisions. It would appear that this part of the lake requires some improvement to make it in keeping with the rest of the water system with which it is connected.

Where the river debouches from it, it is about 150 yards wide, and for a short distance not more than 5 or 6 feet deep. This depth is, however, soon increased to 10 feet or more, and so continues down to what Schwatka calls Marsh Lake. The miners call it Mud Lake, but on this name they do not appear to be agreed, many of them calling the lower part of Tagish or Bove Lake "Mud Lake," on account of its shallowness and flat muddy shores, as seen along the west side, the side nearly always travelled, as it is more sheltered from the prevailing southerly winds. The term "Mud Lake" is however not applicable to this lake, as only a comparatively small part of it is shallow or muddy, and it is nearly as inapplicable to Marsh Lake, as the latter is not markedly muddy along the west side, and from the appearance of the east shore one would not judge it to be so, as the banks appear to be high and

gravelly.

Marsh Lake is a little over nineteen miles long and would average about two miles in width. I tried to determine the width of it as I went along with my survey, by taking azimuths of points on the eastern shore from different stations of the survey; but in only one case did I succeed, as there were no prominent marks on that shore which could be identified from more than one place. The piece of river connecting Tagish and Marsh Lakes is about five miles long, and averages 150 to 200 yards in width, and, as already mentioned, is deep, except for a short distance at the head. On it are situated the only Indian houses to be found in the interior with any pretention to skill in construction. They show much more labor and imitativeness than one knowing anything about the Indian in his native state would expect. The plan is evidently taken from the Indian houses on the coast, which appear to me to be a poor copy of the houses which the Hudson's Bay Company's servants build around their trading posts. These houses do not appear to have been used for some time past, and are almost in ruins. The Tagish Indians are now generally on the coast, as they find it much easier to live there than in their own country. As a matter of fact, what they make in their own country is taken from them by the Coast Indians, so that there is little inducement for them to remain.

The Lewes River, where it leaves Marsh Lake, is about 200 yards wide, and averages this width as far as the canon. I did not try to find bottom anywhere as I went along, except where I had reason to think it shallow, and there I always tried with my paddle. I did not anywhere find bottom with this, which shows that there is no part of this stretch of the river with less than 6 feet of water at medium height, at which stage it appeared to me the river was at that time.

From the head of Bennet Lake to the canon the corrected distance is ninety-five miles, all of which is navigable for boats drawing 5 feet or more. Add to this the westerly arm of Bennet Lake, and the Takone or Windy Arm of Tagish Lake, each about fifteen miles in length, and the Tako Arm of the latter lake, of unknown length, but probably not less than thirty miles, and we have a stretch of water of upwards of one hundred miles in length, all easily navigable; and, as has been pointed out, easily connected with Taiya Inlet through the White Pass.

No streams of any importance enter any of these lakes so far as I know. A river, called by Schwatka "McClintook River," enters Marsh Lake at the lower end from the east. It occupies a large valley, as seen from the westerly side of the lake, but the stream is apparently unimportant. Another small stream, apparently only a creek, enters the south-east angle of the lake. It is not probable that any stream coming from the east side of the lake is of importance, as the strip of country between the Lewes and Tes-lin-too is not more than thirty or forty miles in width at this

point

The Tako Arm of Tagish Lake is so far, with the exception of reports from Indians, unknown; but it is equally improbable that any river of importance enters it, as it is so near the source of the waters flowing northwards. However, this is a question that can only be decided by a proper exploration. The canon I have already described, and will only add that it is five-eighths of a mile long, about 100 feet wide, with perpendicular banks of basaltic rock from 60 to 100 feet high.

Below the canon proper there is a stretch of rapids for about a mile; then about half a mile of smooth water; following which are the "White Horse" Rapids, which are three-eighths of a mile long, and unsafe for boats.

The total fall in the canon and succeeding rapids was measured and found to be 32 feet. Were it ever necessary to make this part of the river navigable it will be no easy task to overcome the obstacles at this point; but a tram or railway could with very little difficulty be constructed along the east side of the river past the canon.

For some distance below the White Horse Rapids the current is swift and the river wide, with many gravel bars. The reach between these rapids and Lake Labarge, a distance of twenty-seven and a-half miles, is all smooth water, with a strong current. The average width is about 150 yards. There is no impediment to navigation other than the swift current, and this is no stronger than on the lower part of the river, which is already navigated; nor is it worse than on the Saskatchewan and Red Rivers in the more eastern part of our territory.

About midway in this stretch the Tahk-heena River joins the Lewes. This river is apparently about half the size of the latter. Its waters are muddy, indicating its passage through a clayey district. I got some indefinite information about this river from an Indian who happened to meet me just below its mouth, but I could not readily make him understand me, and his replies were a compound of Chinook, Tagish, and signs, and therefore largely unintelligible. From what I could understand with any certainty, the river was easy to descend, there being no bad rapids, and it came out of a lake much larger than any I had yet passed.

Here, I may remark, that I have invariably found it difficult to get reliable or definite information from Indians. The reasons for this are many. Most of the Indians it has been my lot to meet are expecting to make something, and consequently are very chary about doing or saying anything, unless they think they will be well rewarded for it. They are naturally very suspicious of strangers, and it takes some time, and some knowledge of their language, to overcome this suspicion and gain their confidence. If you begin at once to ask questions about their country, without previously having them thoroughly understand that you have no unfriendly motive in doing so, they become alarmed, and although you may not meet with a positive refusal to answer questions, you make very little progress in getting desired information. On the other hand, I have met cases where either through fear or hope of reward they were only too anxious to impart all they knew or had heard,

and even more if they thought it would please their hearer. I need hardly say that such information is often not at all in accordance with the facts.

I have several times found that some act of mine when in their presence has aroused either their fear, superstition or cupidity. As an instance: on the Bell River I met some Indians coming down stream when I was going up. We were ashore at the time, and invited them to join us. They started to come in, but very slowly, and all the time kept a watchful eye on us. I noticed that my double-barrelled shot gun was lying at my feet loaded, and picked it up to unload it, as I knew they would be handling it after landing. This alarmed them so much that it was some time before they came in, and I don't think they would have come ashore at all had they not heard that a party of white men, of whom we answered the description, were coming through that way (they had learned this from the Hudson's Bay Company's officers), and concluded we were the party described to them. After drinking some of our tea, and getting a supply for themselves, they became quite friendly and communicative.

Again, on the Mackenzie River, while two Indians were coming ashore at my camp, I picked up a telescope to look for a signal across the river. In looking for it I had to point it towards the Indians who immediately turned and fled. Next day I called at the Indian encampment and explained through my interpreter what I had really done. When they understood it, it caused the camp much amusement.

At Fort Good Hope, on the Mackenzie, I heard of an old Indian who had been a great deal on the Hare River, and could give valuable information regarding it. I asked to have him brought in, that I might question him. In the mean time I set about getting an observation for azimuth, and was busy observing when he came. The interpreter asked me what I was doing; I told him. He asked what I was looking up so much for; I said I was looking at a star. As the time was early in the evening, and the sun well up in the sky, he at first doubted my statement, but, finally believing, he explained to the Indians around what I was doing, and pointed out to them where the star was. They looked up in an awed manner, and walked off. When I finished my observation and inquired for the old man, I was told that he was not inclined to see me. I found him, but he refused to answer any questions, saying that there was no use in telling me anything, for when I could see stars during daylight I could just as easily see all the river, and nothing could convince him to the contrary.

I cite these as instances of what one meets with who comes in contact with Indians, and of how trifles affect them. A sojourn of two or three days with them and the assistance of a common friend would do much to disabuse them of such ideas, but when you have no such aids you must not expect to make much progress.

Lake Labarge is thirty-one miles long. For the upper thirteen it varies from three to four miles in width; it then narrows to about two miles for a distance of seven miles, when it begins to widen again, and gradually expands to about two and a-half or three miles, the lower six miles of it maintaining the latter width. The survey was carried along the western shore, and while so engaged I determined the width of the upper wide part by triangulation at two points, the width of the narrow middle part at three points, and the width of the lower part at three points. Dr. Dawson on his way out made a track survey of the eastern shore. The western shore is irregular in many places, being indented by large bays, especially at the upper and lower ends. These bays are, as a rule, shallow, more especially those at the lower end.

Just above where the lake narrows in the middle there is a large island. It is three and a-half miles long and about half a mile in width. It is shown on Schwatka's map as a peninsula, and called by him Richtofen Rocks. How he came to think it a peninsula I cannot understand, as it is well out in the lake; the nearest point of it to the western shore is upwards of half a mile distant, and the extreme width of the lake here is not more than five miles, which includes the depth of the deepest bays on the western side. It is therefore difficult to understand that he did not see it as an island. The upper half of this island is gravelly, and does not rise very high [PART VIII]

above the lake. The lower end is rocky and high, the rock being of a bright red color.

At the lower end of this lake there is a large valley extending northwards, which has evidently at one time been the outlet of the lake. Dr. Dawson has noted it and its peculiarities. His remarks regarding it will be found on pages 156-160 of his report entitled "Yukon District and Northern portion of British Columbia," published in 1889.

The width of the Lewes River as it leaves the lake is the same as at its entrance, about 200 yards. Its waters, when I was there, were murky. This is caused by the action of the waves on the shore along the lower end of the lake. The water at the upper end and at the middle of the lake is quite clear, so much so that the bottom can be distinctly seen at a depth of 6 or 7 feet. The wind blows almost constantly down this lake, and in a high wind it gets very rough. The miners complain of much detention owing to this cause, and certainly I cannot complain of a lack of wind while I was on the lake. This lake was named after one Mike Labarge who was engaged by the Western Union Telegraph Company exploring the river and adjacent country for the purpose of connecting Europe and America by telegraph through British Columbia, and Alaska, and across Behring's Straits to Asia, and thence to Europe. This exploration took place in 1867, but it does not appear that Labarge then, nor for some years after, saw the lake called by his name. The successful laying of the Atlantic cable in 1866 put a stop to this project, and the exploring parties sent out were recalled as soon as word could be got to them. It seems that Labarge had got up as far as the Pelly before he received his recall; he had heard something of a large lake some distance farther up the river, and afterwards spoke of it to some traders and miners, who called it after him.

After leaving Lake Labarge the river, for a distance of about five miles, preserves a generally uniform width and an easy current of about four miles per hour. It then makes a short turn round a low gravel point, and flows in exactly the opposite of its general course for a mile, when it again turns sharply to its general direction. The current around this curve and for some distance below it—in all four or five miles—is very swift. I timed it in several places and found it from six to seven miles an hour. It then moderates to four or five, and continues so until the Tes-lin-too River is reached, thirty-one and seven-tenth miles from Lake Labarge. The average width of this part of the river is about 150 yards, and the depth is sufficient to afford passage to boats drawing at least 5 feet. It is, as a rule, crooked, and consequently a little

difficult to navigate.

The Tes-lin-too was so called by Dr. Dawson—this, according to information obtained by him, being the Indian name. It is called by the miners "Hootalinkwa" or Hotalinqua, and was called by Schwatka, who appears to have bestowed no other attention on it, the Newberry, although it is apparently much larger than the Lewes. This was so apparent that in my interim reports I stated it as a fact. Owing to circumstances already narrated I had not time while at the mouth to make any measurement to determine the relative size of the rivers; but on his way out Dr. Dawson made these measurements, and his report, before referred to, gives the following values of the cross sections of each stream: Lewes, 3,015 feet; Tes-lin-too, 3,809 feet. In the same connection he states that the Lewes appears to be about 1 foot above its lowest summer level, while the Tes-lin-too appeared to be at its lowest level. Assuming this to be so, and taking his widths as our data, it would reduce his cross section of the Lewes to 2,595 feet. Owing, however, to the current in the Lewes, as determined by Dr. Dawson, being just double that of the Tes-lin-too, the figures being 5 68 and 2 88 miles per hour, respectively, the discharge of the Lewes, taking these figures again, is 18,664 feet, and of the Tes-lin-too 11,436 feet. To reduce the Lewes to its lowest level the doctor says would make its discharge 15,600 feet.

The water of the Tes-lin-too is of a dark brown color, similar in appearance to the Ottawa River water, and a little turbid. Notwithstanding the difference of volume of discharge, the Tes-lin-too changes completely the character of the river

below the junction, and a person coming up the river would, at the forks, unhesitatingly pronounce the Tes-lin-too the main stream. The water of the Lewes is blue in color, and at the time I speak of was somewhat dirty—not enough so, however, to

prevent one seeing to a depth of two or three feet.

At the junction of the Lewes and Tes-lin-too I met two or three families of the Indians who hunt in the vicinity. One of them could speak a little Chinook. As I had two men with me who understood his jargon perfectly, with their assistance I tried to get some information from him about the river. He told me the river was easy to ascend, and presented the same appearance eight days journey up as at the mouth; then a lake was reached, which took one day to cross; the river was then followed again for half a day to another lake, which took two days to traverse; into this lake emptied a stream, which they used as a highway to the coast, passing by way of the Taku River. He said it took four days when they had loads to carry, from the head of canoe navigation on the Tes-lin-too to salt water on the Taku Inlet; but when they come light they take only one to two days. He spoke also of a stream entering the large lake from the east which came from a distance; but they did not seem to know much about it, and considered it outside their country. If their time intervals are approximately accurate, they mean that there are about 200 miles of good river to the first lake, as they ought easily to make 25 miles a day on the river as I saw it. The lake takes one day to traverse and is at least 25 miles long, followed by say 12 of river, which brings us to the large lake, which takes two days to cross, say 50 or 60 more—in all about 292 miles—say 300 to the head of canoe navigation; while the distance from the head of Bennet Lake to the junction is only 188. Assuming the course of the Tes-lin-too to be nearly south (it is a little to the east of it), and throwing out every fourth mile for bends, the remainder gives us in arc three degrees and a quarter of latitude, which, deducted from 61° 40′, the latitude of the junction, gives us 58° 25', or nearly the latitude of Juneau City.

To make sure that I understood the Indian aright, and that he knew what he was speaking about, I got him to sketch the river and lake as he described them on the sand, and to repeat the same several times.

I afterwards met Mr. T. Boswell, his brother, and another miner, who had spent most of the summer on the river prospecting, and from them I gathered the following: The distance to the first, and only lake which they saw, they put at 175 miles, and the lake itself they call at least 150 miles long, as it took them four days to row in a light boat from end to end. The portage to the sea they did not appear to know anything about, but described a large bay on the east side of the lake, into which a river of considerable size entered. This river occupies a wide valley, surrounded by high mountains. They thought this river must head near Liard River. This account differs materially from that given by the Indian, and to put them on their guard, I told them what he had told me, but they still persisted in their story, which I find differs a good deal from the account they gave Dr. Dawson, as incorporated in his report.

Many years ago, sixteen I think, a man named Monroe prospected up the Taku and learned from the Indians something of a large lake not far from that river. He crossed over and found it, and spent some time prospecting, and then recrossed to the sea. This man had been at Forty-Mile River, and I heard from the miners there his account of the appearance of the lake, which amounted generally to this: "The Boswells did not know anything about it". It was unfortunate the Boswells did not remain at Forty-Mile all winter, as by a comparison of recollections they might have arrived at some correct conclusion.

Conflicting as these descriptions are, one thing is certain: this branch, if it has not the greater discharge, is the longer and more important of the two, and offers easy and uninterrupted navigation for more than double the distance which the Lewes does, the cañon being only ninety miles above the mouth of the Tes-lin-too. The Boswells reported it as containing much more useful timber than the Lewes, which indeed one would infer from its lower altitude.

Assuming this as the main river, and adding its length to the Lewes-Yukon below the junction, gives upwards of 2,200 miles of river, fully two-thirds of which run through a very mountainous country, without an impediment to navigation.

Some indefinite information was obtained as to the position of this river in the neighborhood of Marsh Lake tending to show that the distance between them was

only about thirty or forty miles.

Between the Tes-lin-too and the Big Salmon, so called by the miners, or D'Abbadie by Schwatka, the distance is thirty-three and a-half miles, in which the Lewes preserves a generally uniform width and current. For a few miles below the Tes-lin-too it is a little over the ordinary width, but then contracts to about two hundred yards which it maintains with little variation. The current is generally from four to five

miles per hour.

The Big Salmon I found to be about one hundred yards wide near the mouth, the depth not more than four or five feet, and the current, so far as could be seen, sluggish. None of the miners I met could give me any information concerning this stream: but Dr. Dawson was more fortunate, and met a man who had spent most of the summer of 1887 prospecting on it. His opinion was that it might be navigable for small stern-wheel steamers for many miles. The valley as seen from the mouth is wide and gives one the impression of being occupied by a much more important stream. Looking up it, in the distance could be seen many high peaks covered with snow. As the date was August it is likely they are always so covered, which would make their probable altitude above the river 5,000 feet, or more.

Dr. Dawson in his report incorporates fully the notes obtained from the miners. I will trespass so far on these as to say that they called the distance to a small lake near the head of the river 190 miles from the mouth. This lake was estimated to be four miles in length; another lake about twelve miles above this was estimated to be twenty-four miles long, and its upper end distant only about eight miles from the Tes-lin-too. These distances if correct make this river much more important than a casual glance at it would indicate: this, however, will be more

fully spoken of under its proper head.

Just below the Big Salmon the Lewes takes a bend of nearly a right angle. Its course from the junction with the Tahk-heena to this point is generally a little east of north; at this point it turns to nearly west for some distance. Its course between here and its confluence with the Pelly is north-west, and I may add it preserves this general direction down to the confluence with the Porcupine. The river also changes in another respect; it is generally wider, and often expands into what might be called lakes, in which are islands. Some of the lakes are of considerable length, and well timbered.

To determine which channel is the main one, that is, which carries the greatest volume of water, or is best available for the purposes of navigation, among these islands, would require more time than I could devote to it on my way down; consequently, I cannot say more than that I have no reason to doubt that a channel giving 6 feet or more of water could easily be found. Whenever in the main channel I had reason to think the water shallow I tried it with my paddle, but always failed to find bottom, which gives upwards of 6 feet. Of course, I often found less than

this, but not in what I considered the main channel.

Thirty-six and a quarter miles below the Big Salmon, the Little Salmon—the Daly of Schwatka—enters the Lewes. This river is about sixty yards wide at the mouth, and not more than two or three feet in depth. The water is clear and of a brownish hue; there is not much current at the mouth, nor as far as can be seen up the stream. The valley which, from the mouth, does not appear extensive, bears north-east for some distance, when it appears to turn more to the east. Six or seven miles up, and apparently on the north side, some high cliffs of red rock, apparently granite, can be seen. It is said that some miners have prospected this stream, but I could learn nothing definite about it.

Lewes River makes a turn here to the south-west, and runs in that direction six miles, when it again turns to the north-west for seven miles, and then makes a

short, sharp turn to the south and west around a low sandy point, which will at some day in the near future be cut through by the current, which will shorten the river three or four miles.

Eight miles below Little Salmon River a large rock called the Eagle's Nest stands up in a gravel slope on the easterly bank of the river. It rises about 500 feet above the river and is composed of a light grey stone. What the character of this rock is I could not observe, as I saw it only from the river, which is about a quarter of a mile distant. On the westerly side of the river there are two or three other isolated masses of apparently the same kind of rock. One of them might appropriately be called a mountain; it is south-west from the Eagle's Nest, and distant from it about three miles.

Thirty-two miles below Eagle's Nest Rock, Nordenskield River enters from the west. It is an unimportant stream, being not more than one hundred and twenty feet wide at the mouth, and only a few inches deep. The valley as far as can be seen, is not extensive, and being very crooked it is hard to tell what its general direc-

tion is.

The Lewes between the Little Salmon and the Nordenskiold maintains a width of from two to three hundred yards, with an occasional expansion where there are islands. It is serpentine in its course most of the way, and where the Nordenskiold joins it is very crooked, running several times under a hill, named by Schwatka Tantalus Butte, and in other places leaving it, for a distance of eight miles. The dis-

tance across from point to point is only half a mile.

Below this to Rink Rapids, as called by Schwatka, or Five Finger Rapids by the miners, from the fact that five large masses of rock stand in mid channel, the river assumes its ordinary straightness and width, with a current from four to five miles per hour. I have already described Rink Rapids; I do not think they will prove anything more than a slight obstruction in the navigation of the river. A boat of ordinary power would probably have to help herself up with windlass and line in high water.

Below the rapids, for about two miles, the current is strong—probably six miles per hour—but the water seems to be deep enough for any boat that is likely to

navigate it.

Six miles below this, as already noticed, "Little Rapids" are situated. They are of no great importance, the westerly half of the stream only being obstructed. The easterly half is not in any way affected, the current being smooth and the water

deep.

Below Rink Rapids about two miles a small stream enters from the east. It is called by Dr. Dawson Tatshun River. It is not more than 30 or 40 feet wide at the mouth, and contains only a little clear, brownish water. Here I met the only Indians seen on the river between Tes-lin-too and Stewart Rivers. They were engaged in catching salmon at the mouth of the Tatshun, and were the poorest and most unintelligent Indians it has ever been my lot to meet. It is needless to say that none of our party understood anything they said, as they could not speak a word of any language but their own. I tried by signs to get some information from them about the stream they were fishing on, but failed. I tried in the same way to learn if there were any more Indians in the vicinity, but again utterly failed. I then tried by signs to find out how many days it took to go down to Pelly River, but although I have never known these signs to fail in eliciting information in any other part of the territory, they did not understand. They appeared to be alarmed by our presence; and, as we had not yet been assured as to the rumor concerning the trouble between the miners and Indians, we felt a little apprehensive, but being able to learn nothing from them we had to put our fears aside and proceed blindly.

Between Rink Rapids and Pelly River, fifty-eight and a half miles, no streams of any importance enter the Lewes; in fact, with the exception of the Tatshun, it

may be said that none at all enter.

About a mile below Little Rapids the river spreads out into a lake-like expanse, with many islands; this continues for about three miles, when it contracts 24 [PART VIII]

to something like the usual width; but bars and small islands are very numerous all the way to Pelly River. About five miles above Pelly River there is another lakelike expanse filled with islands. The river here for three or four miles is nearly a mile wide, and so numerous and close are the islands that it is impossible to tell when floating among them where the shores of the river are. The current, too, is swift, leading one to suppose the water shallow; but I think even here a channel deep enough for such boats as will navigate this part of the river can be found. Schwatka named this group of islands "Ingersoll Islands."

At the mouth of the Pelly the Lewes is about half a mile wide, and here too there

are many islands, but not in groups as at Ingersoll Islands.

About a mile below the Pelly, just at the ruins of Fort Selkirk, the Lewes was found to be 565 yards wide; about two-thirds being ten feet deep, with a current of about four and three-quarter miles per hour; the remaining third was more than half taken up by a bar, and the current between it and the south shore was very

Pelly River at its mouth is about two hundred yards wide, and continues of this width as far up as could be seen. Dr. Dawson made a survey and examination of this river, which will be found in his report already cited, "Yukon District and North-

ern British Culumbia."

Just here for a short distance the course of the Yukon-Pelly is nearly west, and on the south side, about a mile below the junction with the Lewes, stands all that remains of the only trading post ever built by white men in the district. This post was established by Robert Campbell for the Hudson's Bay Company in the summer of 1848. It was first built on the point of land between the two rivers, but this location proving untenable on account of flooding by ice jams in the spring, it was in the season of 1852 moved across the river to where the ruins now stand. It appears that the houses composing the post were not finished, when the Indians from the coast on Chilkat and Chilkoot Inlets came down the river to put a stop to the competitive trade, which Mr. Campbell had inaugurated, and which they found to seriously interfere with their profits. Their method of trade appears to have been then pretty much as it is now-very one sided. What they found it convenient to take by force they took, and what it was convenient to pay for at their own price they paid for.

Rumors had reached the post that the coast Indians contemplated such a raid, and in consequence the native Indians in the vicinity remained about nearly all summer. Unfortunately, however, they went away for a short time, and during their absence the coast Indians arrived, in the early morning, and surprised Mr. Campbell in bed. They were not at all rough with him, but gave him the privilege of leaving the place within twenty-four hours, after which he was informed that he was liable to be shot if seen by them in the locality. They then pillaged the place and set fire to it, leaving nothing but the remains of the two chimneys which are still standing.

This raid and capture took place on the 1st August, 1852.

Mr. Campbell dropped down the river, and met some of the local Indians, who returned with him, but the robbers had made their escape. I have heard that the local Indians wished to pursue and overtake them, but to this Mr. Campbell would not consent. Had they done so it is probable not many of the raiders would have escaped, as the superior local knowledge of the natives would have given them an advantage difficult to estimate, and the confidence and spirit derived from the aid and presence of a white man or two would be worth much in such a conflict.

Mr. Campbell went on down the river until he met the outfit for his post on its way up from Fort Yukon, which he turned back. He then ascended the Pelly, crossed to the Liard, and reached Fort Simpson, on the Mackenzie, late in October.

Mr. Campbell's first visit to the site of Fort Selkirk was made in 1840 under instructions from Sir George Simpson, then Governor of the Hudson's Bay Company. He crossed from the head waters of the Liard to the waters of the Pelly. It appears the Pelly, where he struck it, was a stream of considerable size, for he speaks of its appearance when he first saw it from "Pelly Banks," the name given the bank

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from which he first beheld it, as a "splendid river in the distance." In June, 1843, he descended the Pelly to its confluence with the main stream, which he named the "Lewes." Here he found many families of the native Indians—"Wood Indians," he called them. These people conveyed to him, as best they could by word and sign, the dangers that would attend a further descent of the river, representing that the country below theirs was inhabited by a tribe of fierce cannibals, who would assuredly kill and eat them. This so terrified his men that he had to return by the way he came, pursued, as he afterwards learned, by the Indians, who would have murdered himself and party had they got a favorable opportunity. Thus it was not until 1850 that he could establish, what he says he all along believed, "that the Pelly and Yukon were identical." This he did by descending the river to where the Porcupine joins it, and where in 1847, Fort Yukon was established by Mr. A. H. Murray for the Hudson's Bay Company.

Mr. Campbell then named the river he had discovered and explored from the height of land to the junction with the Porcupine, "Pelly River," and had it delineated and so named on a map of that part of the country, drawn by J. Arrow-

smith, the topographer for the Hudson's Bay Company, in 1853.

With reference to the tales told him by the Indians of bad people outside of their country, I may say that Mackenzie tells pretty much the same story of the Indians on the Mackenzie when he discovered and explored that river in 1789. He had the advantage of having Indians along with him whose language was radically the same as that of the people he was coming among, and his statements are more explicit and detailed. Everywhere he came in contact with them they manifested, first, dread of himself and party, and when friendship and confidence were established they nearly always tried to detain him by representing the people in the direction he was going as unnaturally bloodthirsty and cruel, sometimes asserting the existence of monsters with supernatural powers, as at Manitou Island, a few miles below the present Fort Good Hope, and the people on a very large river far to the west of the Mackenzie, probably the Yukon, they described to him as monsters in size, power, and cruelty.

In our own time, after all the intercourse that there has been between them and the whites, more than a suspicion of such unknown, cruel people lurks in the minds of many of the Indians. It would be futile for me to try to ascribe an origin for these fears, my knowledge of their language and idiosyncrasies being so limited.

Nothing more was ever done in the vicinity of Fort Selkirk by the Hudson's Bay Company after these events, and in 1869 the Company was ordered by Capt. Charles W. Raymond, who represented the United States Government, to evacuate the post at Fort Yukon, he having found that it was west of the 141st. meridian. The post was occupied by the Company, however, for some time after the receipt of this order, and until Rampart House was built, which was intended to be on British

territory, and to take the trade previously done at Fort Yukon.

Under present conditions the Company cannot very well compete with the Alaska Fur Company, whose agents do the only trade in the district, and they appear to have abandoned—for the present at least—all attempt to do any trade nearer to it than Rampart House, to which point, notwithstanding the distance and difficulties in the way, many of the Indians on the Pelly-Yukon make a trip every two or three years to procure goods in exchange for their furs. The clothing and blankets brought in by the Hudson's Bay Company they claim are much better than those traded on their own river by the Americans. Those of them that I saw who had any English blankets exhibited them with pride, and exclaimed "good." They point to an American blanket in contempt, with the remark "no good," and speak of their clothing in the same way.

On many maps of Alaska a place named "Reid's House" is shown on or near the upper waters of Stewart River. I made inquiries of all whom I thought likely to know anything concerning this post, but failed to elicit any information showing that there ever had been such a place. I enquired of Mr. Reid, who was in the Company's service with Mr. Campbell at Fort Selkirk, and after whom I thought, possibly,

the place had been called, but he told me he know of no such post, but that there was a small lake at some distance, in a northerly direction, from Fort Selkirk, where fish were procured. A sort of shelter had been made at that point for the fishermen, and a few furs might have been obtained there, but it was never regarded as a

Below Fort Selkirk the Pelly-Yukon River is from five to six hundred yards broad, and maintains this width down to White River, a distance of ninety-six miles. Islands are numerous, so much so that there are very few parts of the river where there are not one or more in sight. Many of them are of considerable size, and nearly all are well timbered. Bars are also numerous, but almost all are composed of gravel, so that navigators will not have to complain of shifting sand bars. The current, as a general thing, is not so rapid as in the upper part of the river, averaging about four miles per hour. The depth in the main channel was always found to be more than six feet.

From Pelly River to within twelve miles of White River the general course of the river is a little north of west; it then turns to the north, and the general course

as far as the site of Fort Reliance is due north.

White River enters the main river from the west. At the mouth it is about two hundred yards wide, but a great part of it is filled with ever-shifting sand bars, the main volume of water being confined to a channel not more than one hundred yards in width. The current is very strong, certainly not less than eight miles per hour. The color of the water bears witness to this, as it is much the muddlest that I have ever seen.

I had intended to make a survey of part of White River, as far as the International Boundary, and attempted to do so; but, after trying for over half a day, I found it would be a task of much labor and time, altogether out of proportion to the importance of the end sought, and therefore abandoned it. The valley, as far as can be seen from the mouth, runs about due west for a distance of eight miles; it then appears to bear to the south-west; it is about two miles wide where it joins

the Pelly valley, and apparently keeps the same width as far as it can be seen.

Mr. Harper, of the firm of Harper, McQuestion & Co., went up this river with sleds in the fall of 1872 a distance of fifty or sixty miles. He described it as possessing the same general features all the way up, with much clay soil along its banks. Its general course, as sketched by him on a map of mine, is for a distance of about thirty miles a little north-west, thence south-west thirty or thirty-five miles, when it deflects to the north-west, running along the base of a high mountain ridge. If the courses given are correct it must rise somewhere near the head of Forty Mile River; and if so, its length is not at all in keeping with the volume of its discharge, when compared with the known length and discharge of other rivers in the territory. Mr. Harper mentioned an extensive flat south of the mountain range spoken of, across which many high mountain peaks could be seen. One of these he thought must be Mount St. Elias, as it overtopped all the others, but as Mount St. Elias is about one hundred and eighty miles distant his conclusion is not tenable. From his description of this mountain it must be more than twice the height of the highest peaks seen anywhere on the lower river, and consequently must be ten or twelve thousand feet above the sea. He stated that the current in the river was very swift, as far as he ascended, and the water muddy. The water from this river, though probably not a fourth of the volume of the Pelly-Yukon, discolors the water of the latter completely; and a couple of miles below the junction the whole river appears almost as dirty as White River.

Between White and Stewart Rivers, ten miles, the river spreads out to a mile and upwards in width, and is a maze of islands and bars. The survey was carried down the easterly shore, and many of the channels passed through barely afforded water enough to float the canoes. The main channel is along the westerly shore, down which the large boat went, and the crew reported plenty of water.

Stewart River enters from the east, in the middle of a wide valley, with low hills on both sides, rising on the north side in steps or terraces to distant hills of considerable height. The river, half a mile or so above the mouth, is two hundred

yards in width. The current is slack and the water shallow and clear, but dark colored.

While at the mouth I was fortunate enough to meet a miner who had spent the whole of the summer of 1887 on the river and its branches prospecting and exploring. He gave me a good deal of information of which I give a summary. He is a native of New Brunswick, Alexander McDonald by name, and has spent some years mining in other places, but was very reticent about what he had made or found. Sixty or seventy miles up the Stewart a large creek enters from the south, which he called Rose Bud Creek or River, and thirty or forty miles further up a considerable stream flows from the north-east, which appears to be Beaver River, as marked on the maps of that part of the country. From the head of this stream he floated down on a raft, taking five days to do so. He estimated his progress at forty to fifty miles each day, which gives a length of from two hundred to two hundred and fifty miles. This is probably an overestimate, unless the stream is very crooked, which he stated was not the case. As much of his time would be taken up in prospecting, I should call thirty miles or less a closer estimate of his progress. This river was from fifty to eighty yards wide and was never more than four or five feet deep, often being not more than two or three; the current, he said, was not at all swift. Above the mouth of this stream the main river is from one hundred to one hundred and thirty yards wide with an even current and clear water. Sixty or seventy miles above the last mentioned branch another large branch joins, which is possibly the main river. At the head of it he found a lake nearly thirty miles long and averaging a mile and a half in width, which he called Mayhew Lake, after one of the partners in the firm of Harper, McQuestion & Co. He explored the lake and the head of the river, but saw only the lower part of the river near its mouth.

Thirty miles or so above the forks on the other branch there are falls, which McDonald estimated to be from one to two hundred feet in height. I met several parties who had seen these falls, and they corroborate this estimate of their height. McDonald went on past the falls to the head of this branch and found terraced gravel hills to the west and north; he crossed them to the north, and found a river flowing northward. On this he embarked on a raft and floated down it for a day or two, thinking it would turn to the west and join the Stewart, but finding it still continuing north, and acquiring too much volume to be any of the branches he had seen while passing up the Stewart, he returned to the point of his departure, and after prospecting among the hills around the head of the river he started westward, crossing a high range of mountains composed principally of shales with many thin seams of what he called quartz ranging from one to six inches in thickness.

On the west side of this range he found a river flowing out of what he called Mayhew Lake, and crossing this got to the head of Beaver River, which he descended

as before mentioned.

It is probable the river flowing northwards, on which he made a journey and returned, was a branch of Peel River. He described the timber on the gravel terraces of the water-shed as small and open. He was alone in this unknown wilderness all summer, not seeing even any of the natives. There are few men so constituted as to be capable of isolating themselves in such a manner. Judging from all I could learn it is probable a light-draught steamboat could navigate nearly all of Stewart River and its tributaries.

From Stewart River to the site of Fort Reliance, seventy-three and a quarter miles, the Pelly-Yukon is broad and full of islands. The average width is between a half and three quarters of a mile, but there are many expansions where it is over a mile in breadth; however, in these places it cannot be said that the waterway is wider than at other parts of the river, the islands being so large and numerous. In this reach no streams of any importance enter.

About thirteen miles below Stewart River a large valley joins that of the river, but the stream occupying it is only a large creek. This agrees in position with what has been called Sixty Mile Creek, which was supposed to be about that distance above

Fort Reliance, but it does not agree with descriptions which I received of it; moreover, as Sixty Mile Creek is known to be a stream of considerable length, this creek would not answer its description.

Twenty-two and a half miles from Stewart River another and larger creek enters from the same side; it agrees with the descriptions of Sixty Mile Creek, and I have so marked it on my map. This stream is of no importance, except for what mineral

wealth may be found on it.

Six and a half miles above Fort Reliance the Ton-dac River of the Indians (Deer River of Schwatka) enters from the east. It is a small river about forty yards wide at the mouth, and shallow; the water is clear and transparent, and of a beautiful blue color. The Indians catch great numbers of salmon here. They had been fishing shortly before my arrival, and the river, for some distance up, was full of salmon traps.

A miner had prospected up this river for an estimated distance of forty miles in the season of 1887. I did not see him, but got some of his information at second hand. The water being so beautifully clear I thought it must come through a large lake not far up; but as far as he had gone no lakes were seen. He said the current was comparatively slack, with an occasional "ripple" or small rapid. Where he turned back the river is surrounded by high mountains, which were then covered with snow, which accounts for the purity and clearness of the water.

It appears that the Indians go up this stream a long distance to hunt, but I

could learn nothing definite as to their statements concerning it.

Twelve and a half miles below Fort Reliance, the Chan-din-du River, as named by Schwatka, enters from the east. It is thirty to forty yards wide at the mouth, very shallow, and for half a mile up is one continuous rapid. Its valley is wide and can be seen for a long distance looking north-eastward from the mouth.

Between Fort Reliance and Forty Mile River (called Cone Hill River by Schwatka) the Lewes assumes its normal appearance, having fewer islands and being narrower, averaging four to six hundred yards wide, and the current being more regular. This stretch is forty-six miles long, but was estimated by the traders at

forty, from which the Forty Mile River took its name.

Forty Mile River joins the main river from the west. Its general course as far up as the International Boundary, a distance of twenty-three miles, is south-west; after this it is reported by the miners to run nearer south. Many of them claim to have ascended this stream for more than one hundred miles, and speak of it there as quite a large river. They say that at that distance it has reached the level of the plateau, and the country adjoining it they describe as flat and swampy, rising very little above the river. It is only a short distance across to the Tanana River—a large tributary of the Yukon—which is here described as an important stream. However, only about twenty-three miles of Forty Mile River are in Canada; and the upper part of it and its relations to other rivers in the district have no direct interest for us.

Forty Mile River is one hundred to one hundred and fifty yards wide at the mouth, and the current is generally strong, with many small rapids. Eight miles up is the so called cañon; it is hardly entitled to that distinctive name, being simply a crooked contraction of the river, with steep rocky banks, and on the north side there is plenty of room to walk along the beach. At the lower end of the cañon there is a short turn and swift water in which are some large rocks; these cannot generally be seen, and there is much danger of striking them running down in a boat. At this point several miners have been drowned by their boats being upset in collision with these rocks. It is no great distance to either shore, and one would think an ordinary swimmer would have no difficulty in reaching land; but the coldness of the water soon benumbs a man completely and renders him powerless. In the summer of 1887 an Indian from Tanana, with his family, was coming down to trade at the post at the mouth of Forty Mile River; his canoe struck on these rocks and upset, and he was thrown clear of the canoe, but the woman and children clung to it. In the rough water he lost sight of them, and concluding that they were lost it is said he deliberately drew his knife and cut his throat, thus perishing, while his family

were hauled ashore by some miners. The chief of the band to which this Indian belonged came to the post and demanded pay for his loss, which he contended was occasioned by the traders having moved from Belle Isle to Forty Mile, thus causing them to descend this dangerous rapid, and there is little doubt that had there not been so many white men in the vicinity he would have tried to enforce his demand.

The length of this so called canon is about a mile. Above it the river up to the Boundary is generally smooth, with swift current and an occasional ripple. The amount of water discharged by this stream is considerable; but there is no prospect

of navigation, it being so swift and broken by small rapids.

From Forty Mile River to the Boundary the Pelly-Yukon preserves the same general character as between Fort Reliance and Forty Mile, the greatest width being

about half a mile and the least about a quarter.

Fifteen miles below Forty Mile River a large mass of rock stands on the east bank. This was named by Schwatka "Roquette Rock," but is known to the traders as Old Woman Rock, a similar mass of rock on the west side of the river being known as Old Man Rock.

The origin of these names is an Indian legend, of which the following is the

version given to me by the traders :-

In remote ages there lived a powerful Showman, pronounced Tshaumen by the Indians, this being the local name for what is known as medicine man among the Indians farther south and east. The Tshaumen holds a position and exercises an influence among the people he lives with, something akin to the wise men or magi of olden times in the East. In this powerful being's locality there lived a poor man who had the great misfortune to have an inveterate scold for a wife. He bore the infliction for a long time without murmuring, in hopes that she would relent, but time seemed only to increase the affliction; at length, growing weary of the unceasing torment, he complained to the Tshaumen, who comforted him and sent him home with the assurance that all would soon be well.

Shortly after this he went out to hunt, and remained away many days endeavoring to get some provisions for home use, but without avail; he returned weary and hungry, only to be met by his wife with a more than usually violent outburst of scolding. This so provoked him that he gathered all his strength and energy for one grand effort and gave her a kick that sent her clear across the river. On landing she was converted into the mass of rock which remains to this day a memorial of her viciousness and a warning to all future scolds. The metamorphosis was effected by the Tshaumen, but how the necessary force was acquired to send her across the river (here about half a mile wide), or whether the kick was administered by the Tshaumen or the husband, my narrator could not say. He was also altogether at a loss to account for conversion of the husband into the mass of rock on the west side of the river; nor can I offer any theory, unless it is that he was petrified by astonishment at the result.

Such legends as this would be of interest to ethnologists if they could be procured direct from the Indians, but repeated by men who have little or no knowledge of the utility of legendary lore, and less sympathy with it, they lose much of their value.

Between Forty Mile River and the Boundary line no stream of any size joins the Pelly; in fact, there is only one stream, which some of the miners have named Sheep Creek, but as there is another stream farther down the river, called by the same name, I have named it Coal Creek. It is five miles below Forty Mile, and comes in from the east, and is a large creek but not at all navigable. On it some extensive coal

seams were seen, which will be more fully referred to further on.

At the observatory, three miles above the Boundary, a cross section of the Tiewes River was measured. It was made on the 28th of November and reduced to the height at which the water stood when I reached that place. Holes were cut in the ice at intervals of 100 feet and the depth of water measured with a pole. The measurements commenced at the easterly shore, and were as follows: at 100 feet from water's edge, depth 10.00 feet; at 200 feet, depth 16.33 feet; at 300 feet, depth PART VIII

23·00 feet; at 400 feet, depth 25·00 feet; at 500 feet, depth 25·50 feet; at 600 feet, depth 21·00 feet; at 700 feet, depth, 16·55 feet; at 800 feet, depth 11·25 feet; at 900 feet, depth 6·25 feet; at 1,000 feet, depth 3·75 feet; at 1,100 feet, depth 3·50 feet; at 1,200 feet, depth 3·50 feet; at 1,300 feet, depth 3·50 feet; at 1,400 feet, depth 3·25 feet; at 1,500 feet, depth 3·75 feet; at 1,600 feet, depth 4·00 feet; at 1,700 feet, depth 5·33 feet; at 1,800 feet, depth 6·80 feet: at 1,900 feet, depth 7·00 feet; at 2,000 feet, depth 10·50 feet; at 2,100 feet, depth 10·25 feet; at 2,200 feet, depth 4·00 feet;

at 2,250 feet, water's edge.

At the Boundary the river is somewhat contracted, and measures only 1,280 feet across in the winter; but in summer, at ordinary water level, it would be about one hundred feet wider. Immediately below the Boundary it expands to its usual width, which is about 2000 feet. The area of the cross section measured is 22,268 feet; the sectional area of the Tes-lin-too, as determined by Dr. Dawson and already referred to, is 3,809 feet; that of the Lewes at the Tes-lin-too, from the same authority, is 3,015 feet. Had the above cross section been reduced to the level at which the water ordinarily stands during the summer months, instead of to the height at which it stood in the middle of September when it was almost at its lowest, the sectional area would have been at least 50 per cent. more, and at spring flood level about double the above area.

It is a difficult matter to determine the actual discharge at the place of the cross section, owing to the irregularity in the depth and current, the latter being in the deep channel at the east side, when I tried it in September, approximately 4.8 miles per hour; while on the bar in midstream it was not more than 2.5 miles per hour; and between the bar and the westerly shore there was very little current.

The river above this for some miles was no better for the purpose of cross section measurement. At the Boundary it is narrow and clear of bars and islands for some miles, but here I did not have an opportunity to determine the rate of the current before the river froze up, and after it froze the drift ice was jammed and piled so high that it would have been an almost endless task to cut holes through it.

Taking the sectional area of the deep part alone and the rate of current above stated, and calculating by the approximate formulae used by Dr. Dawson, as given in Trautwine's Engineer's Pocket-Book, p. 562, the discharge in cubic feet per second is 90,864, or about three times that of the Lewes and Tes-lin-too together, as determined by Dr. Dawson. The discharge of the rest of the channel would approximate only 14,000 feet—in all about 105,000 feet. At summer level with an increased sectional area and current it would approximate 60 per cent more, or close to 170,000 feet per second. At high water level it would at least be eight to ten feet deeper, and we can only conjecture what the current would be, but I think it is safe to assume at least 80 per cent. more discharge, which would give us roughly 300,000 feet per second. For the sake of comparison, I give the discharge of the St. Lawrence and Ottawa Rivers, being the mean of the years 1867 to 1882: St. Lawrence, mean 900,000 feet; Ottawa, at Grenville, mean 85,000 feet. The point where cross section was measured is less than seven hundred miles from the head of Lewes River, and from the head of the Tes-lin-too probably eight hundred.

The current, from the Boundary down to the confluence with the Porcupine, is said to be strong, and much the same as that above; from the Porcupine down for a distance of five or six hundred miles it is called medium, and the remainder easy.

On the 22nd September a small steamboat named the "New Racket" passed my camp on her way up to Forty Mile River with supplies; she was about forty feet long and nine or ten feet beam, with about two feet draught. The boat was wholly taken up with engine and boiler, the berths for the crew being over the engine room. The propelling power was a stern wheel driven by two engines of large size for such a small boat. It was claimed for her by her Captain, A. Mayhew, of the firm of Harper, McQuestion & Co., that she could make ten miles an hour in dead water. She was then twenty-two days out from St. Michel's Island, near the mouth of the river. Mr. Mayhew claimed that this was longer than usual, on account of the boiler tubes being out of order and leaking badly, so that it was impossible to keep more than fifty

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pounds pressure, while that generally used was about double. That this was true was apparent from the fact that it took her about five hours to make four miles; and, at one place below my camp, she hung for over an hour without making any progress

at all, nor could she pass that point until she stopped and bottled up steam.

After reaching Forty Mile River this boat started up the stream to Stewart River, with supplies for the few miners who intended to winter there, and materials for the Indian fur trade. Some miners who intended to spend the summer of 1888 mining on Stewart River took passage up on her; but after trying for nearly two days it was found impossible, loaded as she was, to make any headway, so she returned, discharged her passengers, and finally reached Stewart River light. Here the owners intended to lay her up and give her a thorough overhauling before the commencement of next season's navigation. Three other steamboats which navigate the river, the "Yukon," the "St. Michel," and the "Explorer," belong to the Alaska Commercial and Fur Trading Company. These boats are small, and carry little or no freight themselves, but tow loaded barges. Their space is entirely devoted to engine and boiler, and they are driven by a stern wheel. Messrs Harper, McQuestion & Co. expected the Alaska Commercial and Fur Trading Company to put a larger boat on the river in the season of 1888; one that would carry one hundred and twenty to two hundred tons of freight, and make five to seven miles per hour up stream on the upper river. The other boats do not make more than three or four miles per hour, and often not that. None of these boats had passed Stewart River while I was there, nor is it probable they have since done so.

From Stewart River to the mouth of the Yukon is about 1,650 miles, and the only difficult place in all this distance is the part near the confluence with the Porcupine, which has evidently been a lake in past ages, but is now filled with islands: it is said that the current here is swift, and the channels generally narrow, rendering

navigation difficult.

During my stay at the Boundary, readings of the barometer were taken twice daily—at 7:30 a.m. and at 1:30 p.m. These readings are complete for the months of October, November, and December, 1887, and January and February, 1888. I have obtained from Mr. Carpmael, the Director of the Meteorological Service, the readings for the same months at Victoria, B.C., Fort Simpson, B.C., and Sitka, Alaska. The readings at Victoria were taken at 8 a.m. and 2 p.m., those at Fort Simpson at 7 a.m. and 2 p.m., and those at Sitka are given as the daily mean. I took no observation to determine the humidity of the atmosphere; consequently in deducing the height of my station above sea level the correction due to the difference in tension of the vapor in the atmosphere at the different places will have to be neglected. Even had we all the data used in determining the differences of height from the differences of barometer readings, it would be little more than a waste of time to employ it in this case, the distances between the stations being so great. The distance between Sitka and the Boundary is about 560 miles in an air line, with a difference of latitude of nearly 7\frac{3}{4} degrees; Fort Simpson is distant about 760 miles in an air line with a difference of latitude of 10 degrees. The difference in time between Sitka and the Boundary is about twenty-three minutes, and between the Boundary and Fort Simpson forty-two minutes. The readings at the latter place were therefore taken in the morning sixty-five minutes before mine and in the afternoon twelve minutes before.

The temperature of the attached thermometer was recorded with every barometer reading, but the barmometer readings were not corrected for temperature, but entered as read, which will suit every purpose as well. I have used the mean of the barometer readings for the month at each of the two daily observations, corrected for the mean of the temperature readings observed at the same time, and in comparing

with Sitka I have used the mean of the two daily readings.

Victoria is distant about 1,240 miles in an air line, with a difference of latitude 16\(\frac{1}{3} \) degrees, and a difference in time of about an hour and ten minutes; the value of a height deduced from differences of barometer readings at this distance and extending only over a few months will not be of any definite value. Even the closest of \(\frac{1}{3} \) PART VIII

the points, Sitka, will not under the circumstances give more than a poor approximation, but as they are the best—in fact, the only measures we have at the place—they have to be accepted. Using this determination, and the known height of Bennet-Lake above the sea, I have interpolated for the heights of the several points of interest along the river.

Taking the height due to difference of barometer reading alone, and neglecting all the other terms in the formula employed, the heights deduced from the mean of each month compared with each of the above places would stand as follows:—

October November December. January February	$\begin{array}{c} 525 \\ 224 \end{array}$	Fort Simpson. ft. 1,045 836 610 561 845	Victoria. ft. 1,198 1,061 751 607 1,056
Mean		779	934

My readings have been corrected for the monthly mean reading of the attached thermometor, but not for capillarity, as I had no corrections furnished for that error, and I do not know what the bore of the tube was, as unfortunately it was broken before I could get it home. However, as it was large—apparently about halt an inch in diameter—this source of error would not effect the result more than 10 or 12 feet.

These values show the unreliability of barometric measurements of heights when the points are so far apart and the observations extend only over short intervals of time.

One of my thermometers was broken soon after starting, and I had no means of determining the relative humidity of the air, but at my station this was not material during the term of my observations, the temperature being so low. The mean minimum for October was $18^{\circ}.5$; for November $-5^{\circ}.1$; for December -33.6° , mean for 1.30 p.m. $-27^{\circ}.6$; for January, $-25^{\circ}.3$, for 1.30 p.m. $-15^{\circ}.3$; for February, -16.8° , for 1.30 p.m. $-4^{\circ}.3$.

The means of the two readings at Fort Simpson and Victoria and the mean readings at Sitka, with the means of the readings at my station corrected for temperature,

stand as follows in their order for the months mentioned:-

	Victoria.	Fort Simpson.	Sitka.	Boundary.
October	30.152	29.984	29.777	28.813
November	30.024	29.835	29.812	28.865
December	29.911	29.737	29.661	29.058
January	29.975	29.933	29.546	29.296
February	30.133	29.876	29.987	28.943

From these it would appear that the reading for the month of January was abnormally high at my station; rejecting it, the mean of the other four months compared with Sitka is 790 feet. The mean of the three comparisons is 797 feet.

As Sitka is much the nearest point, the temperatures will be correspondingly nearer those of my station, and the hygrometric conditions nearer to mine than at the other places referred to. I have therefore adopted the mean of the four months—October, November, December, and February—which compared with Sitka gives 790 feet.

The height of the confluence of Yukon and Porcupine Rivers is marked on the manuscript map furnished for my guidance as 412 feet above the sea. It is not stated who is the authority for this; but, presumably, it is Capt. C. W. Raymond, of the United States Corps of Engineers, who spent some time there in the summer of 1869. As this point is twelve or thirteen hundred miles by the river from the sea, and for more than half of the distance the current is said to be pretty strong, it is not

probable that the altitude is less than this. Assuming it as 412 feet, we have a fall of 378 feet between the Boundary and that point: the distance between them is about 200

miles, which gives a fall of 1.9 feet per mile in that part of the river.

As already stated, the height of the summit of Taiya Pass is 3.378 feet above the head of canoe navigation on Taiya River, and the latter is assumed to be 120 feet above the sea, making the summit 3,498 feet above tide water. The summit is 1,354 feet above Lake Lyndeman, which gives 2,144 feet for the altitude of this lake. Between it and Lake Bennet there is a fall of 12 or 14 feet. This gives the altitude of Lake Bennet as 2,130 feet, which must be within a very few feet of the exact height.

The corrected distance from the head of Lake Bennet to the Boundary is 639.5 miles. Of this 95.4 miles is lake, leaving 544.1 miles of river. Of this 2.7 miles is the cañon and its rapids, in which there is a fall of 32 feet. Excluding this we have 541.4

miles of river, with a fall of 1,308 feet.

Assuming the rate of descent to be uniform in this distance we have a fall of 2:41 feet per mile. The rate of descent is, of course, not uniform, but the error in the height of any place, deduced from its distance with this rate of fall, will not be very great.

Proceeding thus we get the altitude of Marsh or Mud Lake, 2,118 feet; the head of the canon, 2,056 feet; the foot of canon, 2,024 feet; the mouth of Tahk-heena River, 1,990 feet; Lake Labarge, 1,959 feet; Tes-lin-too River, 1,873 feet; Big Salmon River, 1,787 feet; Little Salmon River, 1,700 feet; Rink Rapids, 1,556 feet; Pelly River, 1,425 feet; White River, 1,194 feet; Stewart River, 1,170 feet; Fort Reliance, 993 feet; Forty Mile River, 882 feet.

AGRICULTURAL CAPABILITIES OF THE PELLY-YUKON BASIN.

The agricultural capabilities of the country along the river are not great, nor is the land which can be seen from the river of good quality.

When we consider further the unsuitable climatic conditions which prevail in the region it may be said that as an agricultural district this portion of the country will never be of value.

My meteorological records show over eight degrees of frost on the 1st of August, over ten on the 3rd, and four times during the month the minimum temperature was below freezing. On the 13th September the minimum temperature was 16°, and all the minimum readings for the remainder of the month were below freezing.

Along the east side of Lake Bennet, opposite the Chilkoot or western arm, there are some flats of dry, gravelly soil, which would make a few farms of limited extent. On the west side, around the mouth of Wheaton River, there is an extensive flat of sand and gravel, covered with small pine and spruce of stunted growth. The vegetation is poor and sparse, not at all what one would desire to see on a place upon which he was thinking of settling. At the lower end of the lake there is another extensive flat of sandy soil, thinly clad with small poplars and pines. The same

remarks apply to this flat as to that at Wheaton River.

Along the westerly shore of Tagish Lake there is a large extent of low, swampy flats, a part of which might be used for the production of such roots and cereals as the climate would permit. Along the west side of Marsh Lake there is also much flat surface of the same general character, on which I saw some coarse grass which would serve as food for cattle. Along the east side the surface appeared higher and terraced, and is probably less suited to the requirements of the agriculturalist. head of the river, for some miles below Marsh Lake, there are flats on both sides, which would, as far as surface conformation goes, serve for farms. The soil is of much better quality than any heretofore seen, as is proved by the larger and thicker growth of timber and underbrush which it supports. The soil bears less the character of detritus, and more that of alluvium, than that seen above.

As we approach the cañon the banks become higher and the bottom lands narrower, with some escarpments along the river. At the cañon the bank on the west side rises two hundred feet and upwards above the river, and the soil is light and

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sandy. On the east side the bank is not so high, but the soil is of the same character,

and the timber small and poor, being nearly all stunted pine.

Between the cañon and Lake Labarge, as far as seen from the river, there is not much land of value. The banks are generally high, and the soil light and sandy. At the head of the lake there is an extensive flat, partly covered with timber, much larger and better than any seen above this point. Poplar eight and ten inches in diameter were not uncommon, and some spruce of fifteen and sixteen inches, and many of upwards of a foot in diameter, were also noticed. The soil, however, is light, and the vegetation, especially the grass, thin and poor.

Some miles down the lake an extensive valley joins that of the lake on the west side. This valley contains a small stream. Around this place there is some land that might be useful, as the grass and vegetation is much better than any seen so far.

On the lower end of the lake, on the west side, there is also a considerable plain which might be utilized; the soil in parts of it is good. I saw one part where the timber had been burned some time ago; here, both the soil and vegetation were good, and two or three of the plants seen are common in this part of Ontario, but they had not the vigorous appearance which the same plants have here.

Northward from the end of the lake there is a deep, wide valley, which Dr. Dawson has named "Ogilvie Valley." In this the mixed timber, poplar and spruce, is of a size which betokens a fair soil; the herbage, too, is more than usually rich for this region. This valley is extensive, and, if ever required as an aid in the susten-

ance of our people, will figure largely in the district's agricultural assets.

Below the lake the valley of the river is not as a rule wide, and the banks are often steep and high. There are, however, many flats of moderate extent along the river, and at its confluence with other streams. The soil of many of these is fair.

About forty miles above the mouth of Pelly River there is an extensive flat on both sides of the Lewes. The soil here is poor and sandy, with small open timber. At Pelly River there is a flat of considerable extent on which the ruins of Fort Selkirk stand. It is covered with a small growth of poplar and a few spruce. The soil is a gravelly loam of about eight inches in depth, the subsoil being gravel, evidently detritus. This flat extends up the river for some miles, but is all covered thickly with timber, except a small piece around the site of the fort.

On the east side of the river there is also a large plateau, but it is two or three hundred feet above the river, and the soil appears to be poor, judging from the thinness and smallness of the trees. This plateau seems to extend up the Pelly for some distance, and down the Yukon for ten or twelve miles. As seen from the river, it reminds one of the slopes and hills around Kamloops in British Columbia, and like them, though not well suited to agriculture, might yield fair pasturage should such

ever be required.

A serious objection to it, however, for that purpose, if it is not watered on the surface by ponds, is that the river is difficult of access, as the plateau on the side towards the river is bounded by a perpendicular basalt cliff, which without artificial arrangement would completely bar approach to the water. This cliff is more than two hundred feet high at the confluence, and becomes lower as we descend the river

until, at the lower end, it is not more than sixty to eighty feet high.

Between Pelly and White Rivers there are no flats of any extent. At White River there is a flat of several thousand acres, but it is all timbered, and the surface of the soil is covered with a thick growth of moss, which prevents the frost ever leaving the ground. This has so preserved fallen timber and the foliage of the trees that much of it is lying on the surface nearly as sound as when it fell. On this account the vegetable mould on the gravel is thin and poor. The standing timber also bears witness to the coldness of the soil by its slow and generally small growth. A few trees near the bank, where the sun can heat the soil, are of fair size, but further back they are generally small.

At Stewart River there is another large flat to which the same general remarks are applicable. Thence, to the site at Fort Reliance, there are no flats of any importance. High above the river in some places there are extensive wooded slopes, which,

when cleared, would be well suited for such agricultural purposes as the climate would permit.

At Fort Reliance there is a flat of probably 1,500 acres in extent, but although Messrs. Harper & McQuestion lived there for some years, it appears they never made

any agricultural experiments, believing that they would be futile.

At Forty Mile River there is a flat of about four or five hundred acres in area. on which the soil is of better quality than on many of the other places mentioned. On this Messrs. Harper & McQuestion have erected their dwelling and store houses. They gave it as their opinion that only very hardy roots would live through the many cold nights of the summer months, and that the season is so short that even if they survived the cold they would not attain a size fit for use.

The river is not generally clear of ice until between the 25th of May and the 1st

of June, and heavy frosts occur early in September, and sometimes earlier.

At the Boundary there are two flats of several hundred acres each, one on the west side, the other three miles above it on the east side. Both of these are covered

with poplar, spruce, and white birch, also some willow and small pine.

In making preparations for the foundations of our house at our winter quarters near the Boundary we had to excavate in the bank of the river, and in an exposed place where the sun's rays could reach the surface without hindrance from trees or other shade we found the depth to the perpetually frozen ground to be not more than two feet. In the woods where the ground was covered with over a foot of moss the frozen ground is immediately below the moss. On this the timber is generally small, and of very slow growth, as is evident from the number of annual rings of growth. I have seen trees of only three or four inches in diameter which were upwards of one hundred and fifty years old.

It is difficult to form an estimate of the total area of agricultural land seen, but it certainly bears a very small proportion to the remainder of the country. think ten townships, or 360 square miles, would be a very liberal estimate for all the places mentioned. This gives us 230,400 acres, or, say 1,000 farms. The available land on the affluents of the river would probably double this, or give 2,000 farms in that part of our territory, but on most of these the returns would be meagre.

Without the discovery and development of large mineral wealth it is not likely that the slender agricultural resources of the region will ever attract attention, at

least until the better parts of our territories are crowded.

In the event of such discovery some of the land might be used for the production of vegetable food for the miners; but, even in that case, with the transport facilities which the district commands, it is very doubtful if it could compete profitably with the south and east.

TIMBER FOR USE IN BUILDING AND MANUFACTURING.

The amount of this class of timber in the district along the river is not at all There is a large extent of forest which would yield firewood, and timber for use in mines, but for the manufacture of lumber there is very little.

To give an idea of its scarceness, I may state that two of my party made a thorough search of all the timbered land around the head of Lake Bennet and down the lake for over ten miles, and in all this search only one tree was found suitable for making such plank as we required for the construction of our large boat. This tree made four planks 15 inches wide at the butt, 7 at the top, and 31 feet long.

Such other planks as we wanted had to be cut out of short logs, of which some, 10 to 14 inches in diameter and 10 to 16 feet long, could be found at long intervals. The boat required only 450 feet of plank for its construction, yet some of the logs had to be carried nearly 200 yards, and two saw-pits had to be made before that quantity was procured, and this on ground that was all thickly wooded with spruce, pine, and some balsam, the latter being generally the largest and cleanest-trunked.

These remarks apply to the timber until we reach the lower end of Marsh Lake. On the head of the river, near the lake, some trees of fair size, 12 to 14

36 PART VIII inches in diameter, and carrying their thickness very well, could be got, but their number was small, and they were much scattered.

At the canon the timber is small and scrubby; below it there were a few trees that would yield planks from 7 to 10 inches wide, but they have been nearly all cut by the miners, many of whom made rafts at the head of Lake Bennet, floated down to White Horse Rapids, and there abandoned them for boats which they then built.

The great bulk of the timber in the district suitable for manufacture into lumber is to be found on the islands in the river. On them the soil is warmer and richer, the sun's rays striking the surface for a much longer time and more directly than on the banks.

At the confluence with the Pelly, on the east side of the river, there is a grove of spruce, from which some very nice lumber could be made, and on the islands below this much of the same class of timber exists. Near White and Stewart Rivers there is a good deal of nice clean timber, but it is small. It is said there is more good timber on Stewart River in proportion to the ground wooded than on the main

Between Stewart River and the Boundary there is not so much surface covered with large trees as on many of the flats above it, the valley being generally narrower, and the sides steeper than higher up the river. This, of course, precludes the

growth of timber.

To estimate the quantity of timber in the vicinity of the river in our territory would be an impossible task, having only such data as I was able to collect on my way down. I would, however, say that one fourth of the area I have given as agricultural land would be a fair conjecture. This would give us two and a half townships, or ninety square miles, of fairly well timbered ground; but it must be borne in mind that there is not more than a square mile or so of that in any one place, and most of the timber would be small and poor compared with the timber of Manitoba and the easterly part of the North West Territories.

At the Boundary Line I required, as has already been explained, a tree 22 inches in diameter at the ground on which to erect my transit. An exhaustive search of over three square miles of the woods there, though showing many trees of convenient size for house logs, and many for small clean planks, showed only one

18 inches in diameter at a distance of 5 feet above the ground.

It may be said that the country might furnish much timber, which, though not fit to be classed as merchantable, would meet many of the requirements of the only industry the country is ever likely to have, viz., mining.

MINERALS.

Under this head I will first mention coal. A thin seam of this was found on Lewes River, about six miles above Five Finger Rapids. This seam was about three feet thick, and at that stage of water was eight or ten feet above the river. could be traced for several hundred yards along the bank. Dr. Dawson made an examination of this seam, and I quote from his report regarding it: "This exposure includes, within sixty feet of the base of the bluff, at least three coal beds, of which the lowest is about three feet thick. This and the other beds contain some good looking coal, of which a thickness of about a foot sometimes occurs, but the greater part of the material is so sandy and impure as to be useless. The coal has been examined by Mr. G. C. Hoffman, who describes it as a lignite coal, with the following composition :--

Hygroscopic water	6.03
Volatile combustible matter	36.92
Fixed carbon	
Ash	
ALDII	0 02

100.00

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Six miles below Five Finger Rapids—at Little Rapids—thin seams of coalwere seen in some shale on the east bank of the river. They were unimportant, being only an inch or so thick, but they show a probable continuation of the first mentioned bed, and a likelihood that a search would reveal an exposure of some value.

No other trace of coal was seen until Coal Creek, five miles below Forty Mile River, was reached. In the drift at the mouth of this creek I picked up specimens of coal much weathered and worn. I made inquiries of the Indians in the vicinity, but they manifested surprise on my showing it to them and burning some of it before them. They professed entire ignorance of the existence of any such stuff up the creek, and said they had never seen or heard of it, though they must, however, have seen it at Belle Isle, near which place there is some on a creek that comes in from the west. Some of this Messrs. Harper & McQuestion had brought to the post, and

burned there, and they had also sent some to San Francisco to be tested.

I made inquiries of the miners and of Mr. Harper, but found that none of them had any personal knowledge of the location of the seam. It appeared, however, that an old man, who had gone out of the country in the fall, had spent part of the summer prospecting on the creek, and though he found no gold he reported abundance of coal, but gave no further particulars. I had several conversations with some of the miners about this coal, and was fortunate enough to enlist the interest of one of them, Mr. James McAuley, of Victoria, B.C. He promised he would some time during the ensuing summer or fall go up the creek and try to find the seam or seams, and communicate the result to me at the first opportunity. This promise he has kept, and in a letter dated at Port Townsend, W.T., 22nd October, 1888, he says:

a letter dated at Port Townsend, W.T., 22nd October, 1888, he says:

"I have measured those coal ledges that you desired I should examine in the British possessions. I brought some samples as far as St. Michel's, but they were mislaid. Two of the ledges measure 5 feet and one 7, and there are others much

larger, but I did not have time to examine them."

That is all he says with reference to the coal seams. Although it is not as definite as one would wish, enough is stated to show that there is a large quantity of coal on the creek. He does not say what distance it is up the creek, but the reason for this is plain. When I asked him to make the search he demurred, on the ground that I would publish his reply, and that some one with capital and influence might benefit by his discovery. I told him that if I published his discovery I would give him credit for it, and that he need not be definite in his location, as all that I wished to ascertain was as to the quantity of coal; and on this understanding he consented to make the search.

No other indications of coal were seen in that part of the country. Some of the drift specimens I picked up at the mouth of the creek were sent out for examination; but when they reached Ottawa they were almost reduced to powder, and I have

heard nothing of any attempt at assay being made.

METALS FOUND ON THE RIVER.

About two miles up Forty Mile River there are large exposures of a white and a grey limestone, containing many thin seams and pockets of galena. One of the seams as seen on the bank is of considerable extent, but as to its length there is no evidence, as it is all covered with drift. Two specimens were sent out and have been assayed by Mr. G. C. Hoffman, of the Geological Survey, with the following result: Specimen marked II, from Forty Mile, about two and a half miles up, contains: gold, a distinct trace; silver, $38\frac{64}{100}$ ounces to the ton of 2,000 pounds.

Specimen marked III, from exposure on Forty Mile River, about three quarters

of a mile up, contains neither gold nor silver.

Were these seams properly surveyed the former might be found of sufficient

extent and value to warrant development.

Specimen marked I, from north bank of Pelly-Yukon River opposite the mouth of Tondac River, about five miles above Fort Reliance, contains: gold, a trace; silver, $3\frac{64}{100}$ ounces to the ton.

Mr. Harper told me he had sent out specimens of the latter ore to San Francisco some years ago, for assay, and that it was pronounced good, but he could not give the value. I did not make an examination of the seam, but it appeared to be extensive. It is of bluish color on the surface, and earthy in appearance.

Specimen marked IIII, from near Station 634 of survey, or near Chan-din-du River, ten or twelve miles below Fort Reliance, contains: gold, a trace; silver, 0.117 ounces to the ton. Nothing was observed at this point to indicate an extensive

quantity of this ore.

It must be borne in mind that these specimens were found by accident. A closer examination of the localities might reveal valuable seams. I have described the specimens found in the order of their value. Though none of them are rich, they show that through an extensive district there are at least indications of wealth. The order in which they were picked up on the river is, I, IIII, and II and III together on Forty Mile River. From I to III is about forty miles in an air line. I was informed that gold and silver-bearing specimens of quartz had been found on Sixty Mile Creek, but I can give no details. I was also informed that a specimen of gold-bearing quartz was picked up some years ago, high up on the side of the bank of Lewes River, opposite the mouth of White River. It was sent to San Francisco and assayed, showing the enormous value of \$20,000 to the ton. This specimen was picked up above high water mark, so that it must have been found at or near its origin, or have been transported there by a glacier, the bank being about 1,200 feet high. No further details regarding this specimen could be learned.

An extensive ledge of gold-bearing quartz is reported on the westerly side of the river, about two miles above Stewart River, but regarding it I could learn nothing definite. It may be a continuation of the same ledge which yielded the

foregoing specimen.

While on Lake Bennet building our boat I found an extensive ledge of quartz, and sent specimens of it out by Dr. Dawson. The assay showed that they contained only traces of gold. The ledge is 60 to 80 feet wide, and can be easily traced on the surface for three or four miles. A small creek cuts through it about a mile

from the lake, and in this creek are found colors of gold.

While we were working at our boat an expert, employed by some California capitalists, came in with an old man who had made a descent of the river the previous summer. The old man and his party were storm-staid on what he called Lake Bennet, and while so delayed he found an enormous exposure of what he thought was gold-bearing rock. He took out specimens of it, and had them assayed at San Francisco. The result was so promising (\$8.80 of gold, and 92 cents of silver to the ton) that he enlisted the interest of some capitalists who sent him out with the expert to locate and test it thoroughly. The old man described the exposure so minutely and circumstantially that one could scarcely disbelieve his statement. They looked for the ledge for some days but could find nothing resembling what he described. They then called upon me and requested my aid. As I was making all possible haste to keep my appointment with Dr. Dawson at Pelly River I was loath to lose time in aiding the search, but, on account of the importance of the matter, and the old man's earnestness and importunity, and influenced further by a certificate of assay which he had, showing the specimens to have yielded the amounts stated (about equal to the celebrated Treadwell mine at Juneau, Alaska, the rock of which he said his mine much resembled), I at last consented.

I spent a day and night searching with him and his associates, but we failed to find anything like what he described. The old man told so many conflicting stories, and seemed to know so little of the lake, that I became convinced he was astray, and had been hoaxed by some one with a piece of the Treadwell rock. I then left them to shift for themselves. The expert took the same view of the matter, and, as he

was in charge of the search, ended it there.

I afterward, on Tagish Lake, saw a place much resembling that described. It is on the south side of the lake and just east of its junction with the Takone arm. I was strongly of opinion that this is the place he referred to, and would have

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examined it to verify my impression, but the wind was too strong and the lake too rough to allow of crossing over.

These are all the indications of ore in situ which I saw or heard of.

The gold heretofore found and worked in the district has been all placer gold. Search was made for it occasionally by us along the lakes and river as we descended, but, with the exception of the colors mentioned at the quartz ledge on Lake Bennet, none was found until after we had passed Lake Labarge, about six miles below which, at a sharp, short bend in the river, we found in a bar many colors to the pan. It may be said generally that colors are found anywhere on the river between that point and the Boundary, and also on all the tributaries which have been prospected.

It is probable that we have not less than 1,400 miles of stream in our part of

the district, upon all of which gold can be found.

About eighteen miles below the Tes-lin-too I saw the first place that had been worked for gold. Here a hut had been erected, and there were indications that a party had wintered there. Between it and Big Salmon River six other locations were met with. One of them, named Cassiar Bar, was worked in the season of 1886 by a party of four, who took out \$6,000 in thirty days. They were working there when I passed in 1887, but stated that all they could get that season was about \$10 per day, and that it was then (3rd August) about worked out. At the time of my visit they were trying the bank, but found the ground frozen at a depth of about three feet, though there was no timber or moss on it. They had recourse to fire to thaw out the ground, but found this slow work.

Two of this party subsequently went down to Forty Mile River, where I met one of them. He was a Swede, and had been gold mining for upwards of twenty-five years in California and British Columbia. He gave me his opinion on the district in these words: "I never saw a country where there was so much gold, and so evenly distributed; no place is very rich, but no place is very poor; every man can make a grub stake (that is enough to feed and clothe him for a year), which is more than I can say of the other places I have been in."

In conversation with Mr. T. Boswell, who, as already stated, had prospected the Tes-lin-too, or Newberry River, in the summer of 1887, I learned that the whole length of that river yielded fine gold, generally at the rate of \$8 to \$10 per day; but as the miners' great desideratum is coarse gold, they do not remain long in a country in which fine gold only is found—generally no longer than is necessary to make a "grub stake," unless the gold is in unusually large quantities. Mr. Boswell therefore went to the lower part of the river, having heard the reports of rich finds.

Stewart River was the first in the district on which mining to any extent was done. In 1886 there were quite a number of miners on it engaged in washing gold, and they all appear to have done fairly well. Their exact number I could not ascertain.

I may say that it is generally very difficult to get any exact, or even approximately exact, statements of facts or values from miners. Many of them are inveterate jokers, and take delight in hoaxing; the higher the official or social position of the person they hoax the better they are pleased. I have several times found that after spending hours getting information from one of them it would be all contradicted by the next one I met. Another cause of difficulty in getting trustworthy information from them is that, in a certain sense, they consider every Government official or agent their enemy, and that he is in the country to spy upon their doings, and find out their earnings, which latter the great majority of them are very averse to have known.

So far as I could see or learn, they do not even disclose to each other their earnings for the season. I met one or two who told me that they had made a certain amount in the season, but on inquiry among the rest these statements were ridiculed and declared untrue. As a rule, they are very generous and honest in their dealings with their fellow men, but a desire for correct geographical or statistical know-40

ledge does not actuate very many of them: hence the disagreement and often contradiction in their statements.

I have heard the amount of gold taken from off Stewart River in 1885 and 1886 estimated at various amounts. One estimate was \$300,000, but this must be excessive. The highest amount I heard as representing any one man's earnings was about \$6,000. This may be true, as many agree that \$30 per day, per man, was common on many of the bars on the river, and instances of as high as \$100 per day having been earned were spoken of.

The only mining done on Stewart River was on the bars in the river; the bench and bank bars were all timbered and frozen, so that to work them would entail a resort

to hydraulic mining, for which there was no machinery in the country.

During the fall of 1886 three or four miners combined and got the owners of the "New Racket" steamboat to allow the use of her engines to work pumps for sluicing with. The boat was hauled up on a bar, her engines detached from the wheels and made to drive a set of pumps manufactured on the ground, which supplied water for a set of sluicing boxes. With this crude machinery in less than a month the miners cleared \$1,000 each, and paid an equal amount to the owners of the boat as their share.

Alexander McDonald, who has been mentioned before, reported to me that the gold on the upper river was somewhat coarser than that on the lower, but not enough so as to be called "coarse gold." He seemed to be satisfied with the result of his

season's prospecting, and intended spending the next season there.

Many of the miners who had spent 1886 on Stewart River and 1887 on Forty Mile River seemed to think the former the better all round mining field, as there were no such failures there as on Forty Mile, and they declared their intention to

make their way back to the Stewart for the season of 1888.

Forty Mile River is the only river in the district on which, up to the fall of 1888, coarse gold had been found, and it may be said that much of it can hardly claim that distinctive title. The largest nugget found was worth about \$39. It was lost on the body of a miner who was drowned at the cañon. Several other nuggets of much less value have been found, but the number of pieces which one could call "nugget" are few.

The miners term Forty Mile a "bed-rock" creek—that is, one in the bed of which there is little or no drift, or detrital matter, the bottom of the river being bed rock. In many places this rock has been scraped with knives by the miners, in order to

gather the small amount of detritus and its accompanying gold.

Very little of the gold on this creek was found in Canadian territory, the coarsest gold being found well up the river. The river had been prospected in 1887 for upwards of one hundred miles, and gold found all the way up. The great point with a miner is to find where the gold comes from. To do this, he has to reach a point on the river where there is none; then he knows he has passed the source, and will search in side valleys and gulches. The theory seems to be that the gold is stored up somewhere and dribbled out along the river.

Pieces of gold-bearing quartz had frequently been picked up along the river in the shallow drift, but none had been found in place, nor did it appear to me that much search had been made for it. Near the mouth of the river there is an extensive flat of detrital matter through which a couple of small creeks flow. This is all said to be gold-bearing, and, it was thought, would pay well for sluicing. Accordingly, a couple of claimants had staked off claims at the mouth of the creeks, and intended to try sluicing in the season of 1888. I have not heard how the venture succeeded.

During the season of 1887 some miners prospected Pelly River, but I have no information as to their success. Dr. Dawson mentions the fact of their being there, but does not appear to have got any statistics from them.

Big and Little Salmon Rivers have also been prospected, with the usual result

that more or less gold has been found everywhere.

I think it may, with confidence, be asserted that rich finds will yet be made of both coarse gold and gold-bearing quartz. It is not likely in the nature of things that such a vast extent of country should have all its fine gold deposited as sediment, brought from a distance, in past ages of the world's development. If this is not the case, the matrix, from which all the gold on these streams has come, must still exist, in part at least, and will no doubt be discovered, and thus enrich this other-

wise gloomy and desolate region.

There are many bank and bench bars along the river which would pay well if sluiced, but there is no convenient or economical way of getting water on them, and there is no pumping machinery as yet in the country. One bank bar of large extent, called Rogers' Bar, just below Old Man Rock, attracted attention in the spring of 1888, and some miners were thinking of getting in an engine and pumps to work it. I made an estimate of the size of engine required for their needs, and computed the probable cost of the plant laid down, but it does not appear that they made any further move.

This bar is more than fifty feet above the water. It fronts on the river for more than two miles, and is in places nearly two miles deep. It is believed that in past ages the Old Man and Old Woman rocks were connected, and formed a barrier across the river over which there was a cataract. Below this the fine gold remained, while the sand and gravel were in part carried further down. So impressed were some persons with the prospect of rich finds on this bar that they thought of bringing water across from the high level of Forty Mile River, a distance of over thirty miles; but when I went up Forty Mile River to the Boundary I saw that it could not be done without the aid of force pumps, and I explained this drawback to them. This bar is said to yield four to six cents to the pan, which, with plenty of water for sluicing, would pay well, while its large extent would warrant considerable outlay. Doubtless there are many other bars as rich as this one, though not as large.

Platinum is generally found associated with gold. This is particularly the case

on Forty Mile River.

As very few outside of mining communities understand anything of the nomenclature of the craft, or of the methods employed to separate the very small quantities of the precious metal from the baser material with which it is associated,

a short description will not be out of place.

When a miner "strikes" a bar he "prospects" it by washing a few panfuls of the gravel or sand of which it is composed. According to the number of "colors" he finds to the pan, that is, the number of specks of gold he can see in his pan, after all the dirt has been washed out, he judges of its richness. Many of them have so much experience that they can tell in a few minutes, very nearly, how much a bar

will yield per day to the man.

The process of "placer" mining is about as follows: After clearing all the coarse gravel and stones off a patch of ground, the miner lifts a little of the finer gravel or sand in his pan, which is a broad, shallow dish, made of strong sheet iron; he then puts in water enough to fill the pan, and gives it a few rapid whirls and shakes; this tends to bring the gold to the bottom on account of its greater specific gravity. The dish is then shaken and held in such a way that the gravel and sand are gradually washed out, care being taken as the process nears completion to avoid letting out the finer and heavier parts that have settled to the bottom. Finally all that is left in the pan is whatever gold may have been in the dish and some black sand which almost invariably accompanies it.

This black sand is nothing but pulverised magnetic iron ore. Should the gold thus found be fine, the contents of the pan are thrown into a barrel containing water and a pound or two of mercury. As soon as the gold comes in contact with the mercury it combines with it and forms an amalgam. The process is continued until enough amalgam has been formed to pay for "roasting" or "firing." It is then squeezed through a buckskin bag, all the mercury that comes through the bag being put back into the barrel to serve again, and what remains in the bag is placed in a retort, if the miner has one, or, if not, on a shovel, and heated until nearly all the

mercury is vaporized. The gold then remains in a lump with some mercury still held in combination with it.

This is called the "pan" or "hand" method, and is never, on account of its slowness and laboriousness, continued for any length of time, when it is possible to procure a "rocker," or to make and work sluices.

A "rocker" is simply a box about three feet long and two wide, made in two parts, the top part being shallow, with a heavy sheet iron bottom, which is punched full of quarter-inch holes. The other part of the box is fitted with an inclined shelf about midway in its depth, which is six or eight inches lower at its lower end than at its upper. Over this is placed a piece of heavy woollen blanket The whole is then mounted on two rockers, much resembling those of an ordinary cradle, and when in use they are placed on two blocks of wood, so that the whole may be readily rocked. After the miner has selected his claim, he looks for the most convenient place to set up his "rocker," which must be near a good supply of water. Then he proceeds to clear away all the stones and coarse gravel, gathering the finer gravel and sand in a heap near the "rocker." The shallow box on top is filled with this, and with one hand the miner rocks it, while with the other he ladles The finer matter with the gold falls through the holes on to the blanket, which checks its progress, and holds the fine particles of gold, while the sand and other matter pass over it to the bottom of the box, which is sloped so that what comes through is washed downwards and finally out of the box. Across the bottom of the box are fixed thin slats, behind which some mercury is placed to catch any particles of gold which may escape the blanket. If the gold is nuggety, the large nuggets are found in the upper box, their weight detaining them until all the lighter stuff has passed through, and the smaller ones are held by a deeper slat at the outward end of the bottom of the box. The piece of blanket is, at intervals, taken out and rinsed into a barrel; if the gold is fine, mercury is placed at the bottom of the barrel, as already mentioned.

Sluicing is always employed when possible. It requires a good supply of water with sufficient head or fall. The process is as follows: Planks are procured and formed into a box of suitable width and depth. Slats are fixed across the bottom of the box at suitable intervals, or shallow holes bored in the bottom in such order that no particle could run along the bottom in a straight line and escape without running over a hole. Several of these boxes are then set up with a considerable slope and are fitted into one another at the end like the joints of a stove-pipe. A stream of water is now directed into the upper end of the highest box. The gravel having been collected, as in the case of the rocker, it is shovelled into the upper box and is washed downwards by the strong current of water. The gold is detained by its weight, and is held by the slats or in the holes mentioned; if it is fine, mercury is placed behind the slats or in these holes to catch it. In this way about three times as much dirt can be washed as by the rocker, and consequently three times as much gold secured in a given time. After the boxes are done with they are burned, and

the ashes washed for the gold held in the wood.

Unfortunately, on Lewes and Pelly Rivers there is no way of sluicing without the aid of pumps, there being no streams with fall enough to get the necessary current in the sluice boxes.

There is very little reliable information as to the amount of gold that has been taken out of the district since its discovery and development. The following is the

best estimate which I can form on the subject:—

Stewart River was pretty well worked for two seasons, 1885-86, by about forty Assuming that they averaged half that men, some of whom made at least \$5,000. amount, we have \$100,000 as their earnings. Forty Mile River, the only other stream from which any large quantity has been taken, was worked in the summer of 1887 by about three hundred men, many of whom spent only a few weeks on the river, some only a few days. The statement made by those of whom I inquired was that all who worked on the river for any length of time made a "grub stake." Putting this at the lowest value I heard placed on it, \$450, and assuming that two hundred

and fifty men made each this sum, we have \$112,500 as the amount taken out on

this stream. I have heard the sum placed as high as \$130,000.

All the gold taken from the other streams by prospectors would not amount to more than a few thousand dollars, so that it is probable the total amount taken out of the whole district is in the vicinity of a quarter of a million dollars, of which about half was taken out in our territory.

I learned that the prevailing high water interfered very much with the success of the miners in the season of 1888, and that many of them left the country in the fall. It is probable, however, that a few will remain prospecting until something rich is

found

As Dr. Dawson has reported on the geology of the region along the Lewes, and Mr. McConnell has made an examination of the river from Porcupine River, it is needless to do more than refer to their reports. I may briefy state, however, that the whole course of the river in Canada is through a mountainous country, the rocks of which, as far as seen, are principally granitic, schists, shales, and some limestone, the latter at Lake Labarge. There is also some basalt at the canon and at the confluence with Pelly River.

Just below Coal Creek a range of high mountains comes in from the south-east, and continues down the river past the Boundary. These mountains are composed

principally of limestone, with occasional exposure of shale and sandstone.

While going down the river with the survey I located some prominent peaks by triangulation, and determined their height. Unfortunately, I could not, owing to cloudy weather, get as many as I wished. Those located are shown on my map of the survey. I have named a few of them, as they have not, to my knowledge, been

previously named.

One of them, seen from the south end of Lake Labarge, on the east side, I have named Mount Dawson, after Dr. Dawson of the Geological Survey. Its altitude above the lake was taken from two points on the east side, from which its distance was, respectively, 724·5 and 773 chains. The height as deduced from the observed angles of elevation of the top from each station was, respectively, 3,238 and 3,263 feet. Part of this difference is no doubt due to want of precision in the instrument used, and part to the fact that the same point may not have been sighted on from both stations. The latter height is probably the nearer to the truth. The altitude of the lake I have put at 1,959 feet, which would make the height of the mountain 5,222 feet above the sea.

Another peak near the Boundary I have named Mount Morison, after a member of my party; and another Mount Gladman, after another member. These two peaks are the highest seen from the river in the vicinity of the Boundary. Mount Morison was ascended and its height determined by aneroid barometer, the mean of the readings at starting from and returning to the river being compared with the reading at the top. The difference between the two readings at the river was about fifty feet. The height thus determined was 2,390 feet, which gives the altitude above sea 3,180

feet. Mount Gladman was apparently a little higher.

The only people doing business in the country outside of gold mining were Messrs. Harper, McQuestion & Co. They have been trading at several points on the river pretty constantly since 1873. They occupied Fort Reliance for some years, and in 1886 they established a post at Stewart River to meet the demands of the miners who were working there. They did not anticipate the rush to the country that took place in that year, and their supplies ran short, so that all were for some months on the verge of starvation. Unfortunately, too, scurvy broke out in the camp, and there was much suffering.

In 1887 they established a post at Forty Mile River, whither nearly all the miners had gone, coarse gold having been discovered there during the previous fall. During the winter of 1887-88 they did business at both these posts, Messrs. Harper and McQuestion being in charge at Forty Mile, and Mr. Mayhew at Stewart River. The latter post was kept open principally for the Indian trade, though had there been no miners there it is probable they would have abandoned it. I could not

learn definitely the amount of their sales to the miners in 1887, as it is a delicate question to ask a person who is selling foreign goods in Canadian territory to reveal to a Canadian employed by the Government the amount of his trade. Very likely, had I asked the question, I would have received a short answer, though in every other way I am under great obligation to Messrs. Harper & McQuestion for acts of kindness and attention, both sought and unsought.

A person who had a good idea of the amount of their business during the season estimated their sales at \$60,000, and from facts which came under my own obser-

vation I consider this not far from the truth.

Until the miners visited the country the trade done by this firm was confined to barter with the natives for furs. I understand that they do a sort of commission business for the Alaska Commercial and Fur Trading Company-that is, the company supply goods at a certain advance on San Francisco prices, and deliver them, at the trading post at a certain rate per ton. In payment they take whatever pelts have been collected at a certain prearranged price, varying according to the state of the fur market. I understand, however, their freight charges remain constant, and are \$30 per ton for goods paid for in furs, and \$125 per ton for goods paid for in cash, the latter being the goods imported for the use of the miners.

Their prices for goods in 1887 were not exorbitant, although there must have been a fair profit. They were: flour, \$17.50, per hundred pounds; bacon \$40 per hundred; beans, \$18 per bushel; sugar, \$30 per hundred; and tea, \$1.25 per pound. Both of these gentlemen came into the country in the summer of 1872, Mr. Harper crossing the mountains from the Cariboo gold fields in British Columbia, and descending Liard River to the Mackenzie. He went down the latter river and up the Peel, whence he crossed to the waters of the Porcupine, which he descended to

the Yukon; he then went up the latter to White River, where he wintered.

Mr. McQuestion came in at the same time by way of Peace River, trading for a

short time around Lake Athabasca before he descended the Mackenzie.

The principal furs procured in the district are the silver-grey and black fox, the number of which bears a greater ratio to the number of red foxes than in any other part of the country. The red fox is very common, and a species called the blue is abundant near the coast. Marten, or sable, are also numerous, as are lynx; but otter are scarce, and beaver almost unknown.

It is probable that the value of the grey and black fox skins taken out of the country more than equals in value all the other furs. I could get no statistics con-

cerning this trade for obvious reasons.

Game is not now as abundant as before mining began, and it is difficult, in fact impossible, to get any close to the river. The Indians have to ascend the tributary streams ten to twenty miles to get anything worth going after. Here on the uplands vast herds of cariboo still wander, and when the Indians encounter a herd they allow very few to escape, even though they do not require the meat. When they have plenty they are not at all provident, and consequently are often in want when game is scarce. They often kill animals which they know are so poor as to be useless for food, just for the love of slaughter.

An Indian who was with me one day saw two cariboo passing and wanted me to shoot them. I explained to him that we had plenty, and that I would not destroy them uselessly, but this did not accord with his ideas. He felt displeased because I did not kill them myself or lend him my rifle for the purpose, and remarked in as good English as he could command: "I like to kill whenever I see it."

Some years ago moose were very numerous along the river, but now they are very seldom seen, except at some distance back from it. Early in the winter of 1887-88 the Indians remained around the miners' camps, and subsisted by begging until all further charity was refused. Even this for some time did not stir them, and it was not until near Christmas that sheer hunger drove them off to hunt. One party went up the Tat-on-duc some fifteen or twenty miles, and in a short time was revelling in game, especially cariboo. The other party did not succeed for some time in getting anything, although a large district was searched over, but

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finally went up Coal Creek about twenty miles, and there killed eighteen moose in one day. They brought in two thousand pounds of the meat to the post, and sold it for ten cents per pound to the miners, with whom it was in great demand on account of the prevalence of scurvy in the camp.

A boom in mining would soon exterminate the game in the district along the

river.

There are two species of cariboo in the country; one, the ordinary kind, found in most parts of the North West, and said to much resemble the reindeer; the other, called the "wood cariboo," a much larger and more beautiful animal. Except that the antlers are much smaller, it appears to me to resemble the elk or wapiti.

The ordinary cariboo runs in herds, often numbering hundreds. It is easily approached, and, when fired at, jumps around a while as though undecided what to do; it then runs a short distance, but just as likely towards the hunter as from him, stops again, and so on for a number of times. At last, after many of them have been killed, the remainder start on a continuous run, and probably do not stop until they have covered twenty or thirty miles. When the Indians find a herd they surround it, gradually contracting the circle thus formed, when the animals, being too timid to escape by a sudden rush, are slaughtered wholesale.

There are four species of bears found in the district—the grizzly, brown, black, and a small kind, locally known as the "silver-tip," the latter being grey in color, with a white throat and beard, whence its name. It is said to be fierce, and not to wait to be attacked, but to attack on sight. I had not the pleasure of seeing any, but heard many "yarns" about them, some of which, I think, were "hunters' tales." It appears, however, that miners and Indians, unless travelling in numbers, or

specially well armed, give them as wide a berth as they conveniently can.

Wolves are not plentiful. A few of the common grey species only are killed,

the black being very scarce.

The arctic rabbit or hare is sometimes found, but they are not numerous. There is a curious fact in connection with the ordinary hare or rabbit which I have observed, but of which I have never yet seen any satisfactory explanation. Their numbers vary from a very few to myriads, in periods of seven years. For about three years one may travel for days without seeing more than a sign of them; then for two years they are numerous, and increase for two years more, until finally the country is alive with them, when they begin to disappear, and in a few months there are none to be seen. If it is an epidemic that carries them off, it is strange that their carcases are never observed in any number.

It appears the martens are also subject to a periodical increase and decrease,

and in this case a satisfactory explanation of the cause is also wanting.

The mountain sheep (Big-horn), and mountain goats exist everywhere in the territory; but, as they generally frequent the sides of the highest mountains, they are seldom seen from the river.

Birds are scarce. A few ravens were seen along the river, and three or four remained in the vicinity of the Boundary all winter. They were generally more active and noisy on stormy days than at other times, and their hoarse croak had a dismal sound amid the roar of the elements.

A few magpies were seen near Nordenskield River, and a few white-headed

eagles were also noticed.

During the winter, near the Boundary, numbers of small birds, somewhat resembling the "chick-adee," were seen, but they were much larger and had not the same note. Of owls, not a specimen was met with anywhere. Partridges were very scarce, only half a dozen or so of the ordinary kind being noticed; but at the head of the Tat-on-duc and Porcupine ptarmigan were abundant. Wild geese and ducks are plentiful in their season, and of ducks there are many more species than I have seen in any other part of the territory. Most of these were observed on the head of the Porcupine; but, having no means of preserving the skins, I had to come away without specimens. A very beautiful species of loon or diver was met with on the Porcupine. It is smaller than the great northern diver, but marked much the same

on the body, the difference being principally in the head and neck—the bill is sharper and finer and the head smaller; but its chief distinguishing feature is the neck, which is covered with long, beautiful dun-colored down for more than half its length from the head downwards. I tried to kill one so as to get the skin as a specimen, but after I had fired three times at close range with heavy shot it seemed as lively as if I had not fired at all. I then killed it with my rifle, but the bullet so

tore and mangled the skin that it was useless.

With the exception of a small species, locally called the arctic trout, fish are not numerous in the district. Schwatka calls this trout the grayling, but from the descriptions and drawings of that fish which I have seen this is a different fish. It seldom exceeds ten inches in length, and has fins very large for its size, which give it, when in motion, the appearance of having wings. Its dorsal fin is very large, being fully half the length of the body, and very high. The fish is of a brownish grey color on the back and sides, and lighter on the belly. It is found in large numbers in the upper part of the river, especially where the current is swift, and takes any kind of bait greedily. The flesh is somewhat soft and not very palatable. Lake trout are caught in the lakes, but as far as I saw, are not numerous nor of large size. They take a troll bait readily, and a few were caught in that way coming down the lakes, but the largest did not weigh more than six or seven pounds. Salmon come up, I was assured by several Indians, natives of the district, as far as Lake Labarge, and are never found above it, but Dr. Dawson reports their dead bodies along the river for some miles above the cañon. I mention this to show the unreliability of information received from the natives, who frequently neither understand nor are understood.

On the way down, salmon were first seen twenty or twenty-five miles above Five Finger Rapids. One can easily trace their passage through the water by the slight ripple they make on the surface and, with care, they can be taken by gently placing a scoop net in their way and lifting them out when they enter it. After coming up the river two thousand miles they are poor, and would not realise much in the market. At the Boundary, in the early winter months, the Indians caught some that were frozen in on small streams, and fed them to their dogs. Some of these I saw; they were poor and spent.

I had very little opportunity to learn anything of the language, manners, customs, or religion of the natives on my way through their country, my time with them being so short, and none of the whites whom I met in the district seemed to possess any information upon which I could draw. I got a few items, but as they may or may not be facts, I shall not report them. The statements of every one I met, however, pretty well establish that by one of their laws inheritance is through

the mother.

As far as possible, I have obtained the numbers of the various bands along the river. Beginning at the coast the number of the Chilkoots, as stated by Commander

Newell, was 138 souls, of whom about 40 were full grown men.

As far as I could gather from G. Carmack, who lives with the Tagish Indians, and has one of them for a wife, there are of them about 112 souls all told, but many of these are almost permanently located with the Chilkoots, some of the latter

having Tagish wives.

The Tagish complained bitterly to me, as well as they could, having only a few words of Chinook and English with which to convey their meaning, of the tyranny and robbery of the Chilkoots. Klohk-shun, the Chief of the Tagish, said "Chilkoot all same dog," imitating the snapping action of a dog as he said so. Those who have had any experience with Indian dogs can appreciate the comparison. These people are scattered along the river from the Tes-lin-too up. The only market they have at present for the few furs they collect is on the coast at the head of the Inlet, and they say they are robbed of half their goods on the way there by the Chilkoots. On my way to the summit I met three or four Tagish coming in with two packs of furs, to trade. Meeting me afterwards at the summit, one of them informed me that they were met a short distance outside the village, and one of the packs was taken from

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them by force, and the other paid for at forced prices. Much of this talk I have no doubt was intended to create sympathy, and induce charity, as they, like many other Indians, are inveterate beggars; but I have no doubt that they are little more than slaves to the Chilkoots, and are both robbed and swindled most barefacedly.

Below Five Finger Rapids I saw two families of Indians, consisting of ten or twelve souls, very poor looking, and the most stupid I have ever met. Wanting to buy some tea and other stuff from me, they tendered in payment the tin stamps that are put by some manufacturers on plugs of tobacco. These, they signified to us, had been given to them in exchange for furs by the coast Indians. It is possible that they had got them from the Indians on the tobacco, and were trying to swindle me, but I am inclined to think not.

At Stewart River there were two Indian men, two women, and two children. One of the men had picked up a few words of English from the miners and traders the winter before, and, as far as he could be, was very communicative. He informed me that there were about thirty families of Indians up the river twenty or thirty miles, "one day," as he expressed it. They were living on salmon, and had no trouble in catching all they required.

Between Stewart River and Forty Mile River three families were met with, but, as they knew neither English nor Chinook, no information as to their headquarters could be got from them. It is probable they were a part of the band located at Fort Reliance. Mr. Harper informed me that the band at the latter place numbered about twelve families, or, say, 70 souls. At Belle Isle, fifteen miles below the Boundary, David's band is located. It numbers 65 to 70 souls. About one hundred miles below the Boundary, Charley's band has its headquarters. It numbers some twelve families, in all about 66 souls. I came more in contact with the last two bands than with any of the others, as David's band was only twelve miles from my winter quarters for some months, and many of them were frequently in the house with me for a night or two on their way to and from Forty Mile River. A missionary sent over by the Right Rev. Bishop Bompas, who is in charge of the diocese of Mackenzie River for the Church Missionary Society of England, was stationed with David's band all winter.

Some years ago, when Archdeacon McDonald, now in charge of the mission work at Fort McPherson, on Peel River, was stationed at Fort Yukon, and afterwards at Rampart House, Charley's band used to resort to those posts for their trade, and that gentleman taught them to read, and instructed them in the principles of the Christian religion. It is pleasant to be able to testify that they have profited by this instruction, and still retain a loving memory of those times. They hold every Sunday a service among themselves, reading from their books the prayers and lessons for the day, and singing in their own language to some old tune a simple hymn. They never go on a journey of any length without these books, and always read a portion before they go to sleep. I do not pretend that these men are faultless, or that they do not need watching, but I do believe that most of them are sincere in their professions and strive to do what they have been taught is right. They are greedy and selfish in their transactions with whites, but I think much of that is because they have probably never had the sin of undue greed put forcibly before them by their pastor. Their chief, Charley, is a fine specimen of a level-headed, thoughtful Indian, who, up to the time of my departure, at least, did not fail to point out to his people the baneful effect of immoral intercourse with the whites. The majority of the miners, though honorable and generous to a fault in their dealings with the Indians, as far as ordinary dealing goes, have, I am sorry to say, little or no conscientious scruples concerning the moral relations of the sexes, and would not hesitate to take advantage of any weakness in that direction which they might find.

David's and Charley's bands manifested to me a much stronger sympathy for Canada than for the United States. Some of this feeling might be due to policy, for aught I know, but hitherto most of their dealings and all their education have been Canadian. The total number on the river is 482, of whom 136 are below the PART VIII]

Boundary, leaving 346 domiciled in Canada. It does not appear that any live per-

manently on the upper Pelly or Stewart.

I shall now give a table of distances from Haines Mission on the coast at the head of Chilkoot Inlet to the Boundary. Some distances were given in my interim report published in the Departmental report of 1887, but as they were uncorrected for errors in the survey, I now submit a revised table. The error of the survey is found from the difference of latitude, as deduced from the survey, by measuring on the plan the northing made in each day's work, and applying this northing converted into arc to the latitude of the previous day's last station deduced in the same way, and so on from the starting point, Pyramid Island, to the observed latitudes at Fort Selkirk, and at the Boundary—the former taken by Dr. Dawson, the latter by myself. The error is cumulative, and distributed pretty uniformly, taking both latitude and longitude into account.

DISTANCES FROM HAINES MISSION

DISTANCES FROM HAINES MISSION	
The Minimum to automic of Maine Tulet	Miles.
Haines Mission to entrance of Taiya Inlet	$\frac{4.79}{20.12}$
Head of Taiya Inlet	26.02
Head of canoe navigation, Talya River	
Forks of Taiya River	28.50
Summit of Taiya Pass	34.88
Landing at Lake Lyndeman	43.18
Foot of Lake Lyndeman	47.61
Head of Lake Bennet	48.21
Boundary line B. C. and N. W. T. (Lat. 60°)	58.21
Foot of Lake Bennet	73.97
Foot of Cariboo Crossing (Lake Nares of Schwatka)	76.56
Foot of Tagish Lake	93.37
Head of Marsh Lake	98.27
Foot of Marsh Lake	117.33
Head of Canon	143.06
Foot of Cañon	143.68
Head of White Horse Rapids	145.07
Foot of White Horse Rapids	145.45
Tahk-heena River	160.04
Head of Lake Labarge	173.19
Foot of Lake Labarge	204.34
Tes-lin-too River (Newberry of Schwatka)	236.00
Big Salmon River of miners (D'Abbadie of Schwatka)	$269 \cdot 45$
Little Salmon River of miners (Daly of Schwatka)	305.66
Five Finger Rapids (Rink Rapids of Schwatka)	364.95
Pelly River	423.41
White River	519.23
Stewart River	52 9·03
Fort Reliance	602.32
Forty-Mile River	647.20
Boundary Line	687.55

In the appendix will be found my meteorological observations, which I began to keep regularly on the 1st of August, 1887, and carried on till the 1st of November, 1888, but I will here give some extracts from them. First snow of the season on the mountain tops, 10th September. First snow in the valley, 23rd September. Temperature of river water on 1st October, 38.0°. First ice drifting in river, 21st October. Ice set in river, 15th November. Thickness of ice, 1st December, 14½ inches; 3rd January, 40½ inches; 3rd February, 48 inches; 2nd March, 48½ inches.

A small collection of plants was made along the river, and those obtained above the Pelly were taken home by Dr. Dawson. They have been classified by Prof. J. Macoun, F.L.S. A list of them, as well as of those collected by himself, Dr. Dawson gives in an appendix to his report. I take the liberty of extracting from the list, and inserting here those collected by me. Others, not included in this list, from the lower river and the Mackenzie were much damaged by rain. The scarcity of time at my disposal must be accepted as an excuse for my not attending to their preservation.

(1). Anemone multifida, D.C. (cut-leaved Anemone)—Lake Bennet. Common throughout Canada.

(2). Caltha palustris, Linn. (Marsh Marigold)—Chilcoot Inlet. Marshes throughout Canada.

(3). Silene acaulis, Linn. (Moss Campion)—Lake Lyndeman. On mountains and Arctic regions.

(4). Oxytropis campestris, D.C. (Field Oxytropis)—Lewes River, river gravels,

and rocky banks northward.

(5). Hedysarum boreale, Nutt. (Northern Hedysarum)—Tagish Lake. Common on the prairies and in Quebec.

(6). Dryas Drummondii, Hook. (Drummond's Dryas)—Lewes River. River

gravels in the Rocky Mountains. Lake Superior and Quebec.

- (7). Potentitta fruticosa, Linn. (Shrubby Cinquefoil)—Lake Bennet. Common throughout Canada.
- (8). Saxifraga tricuspidata, Retz. (Three-toothed Saxifrage)—Lake Bennet. Cold rocky banks, the whole forest region.

(9.) Ribes rubrum, Linn. (Wild Red Currant)—Chilcoot Inlet. Common in

swamps throughout Ontario.

(10.) Sedum stenopetalum, Pursh. (Mountain Stone-crop)—Tagish Lake. Rocky and other mountains; common.

(11.) Epilobium augustifolium, Linn. (Fire-weed)—Lake Bennet. Common

throughout Canada.

- (12.) Epilobrium latifolium, Linn. (Broad-leaved willow herb)—Lake Bennet. River gravels in the mountains northward and eastward to Labrador.
- (13.) Selinum Dawsoni, C. & R. (Dawsoni Selinum)—Lake Labarge. New to science. Only found by Dawson and Ogilvie. Described in Coulter's Botanical Gazette, Vol. XIII, p. 144, June, 1888.

(14.) Archangelica Gmelini, D. C. (Sea-coast Archangelica)—Chilcoot Inlet.

Common on both Pacific and Atlantic coasts.

(15.) Galium boreale, Linn. (Northern Bed-straw)—Lake Labarge. Common throughout Canada.

(16.) Solidago multiradiata, Ait. (Many-rayed Solidago)—Tagish Lake. High

mountains, and northeastward to Labrador.

- (17.) Solidago Virga-aurea, Linn., Var. Alpina, Bigel. (Alpine Solidago)—Lewes River. Crevices of rocks, Lake Superior and northeastward.
- (18.) Aster Sibiricus, Linn. (Siberian Stav-wert)—Lewes River. River gravels, in mountains.
- (19.) Achillaea Millefolium, Linn. (Yarrow)—Tagish Lake. Common throughout Canada.
- (20.) Arnica latifolia, Bong. (Broad-leaved Arnica)—Lake Bennet, Common in mountains.
- (21.) Loiseleuria procumbens, Desv. (Alpine Azalea)—Chilcoot Pass. Northern mountains and whole Arctic coast.
- (22.) Gentiana Amarella, Var. Acuta, Hook. (Annual Gentian)—Lewes River. Common in woods and prairies throughout Canada.
 - (23.) Mertensia paniculata, Don. (Panelèd Lungwort)—Lake Bennet. Common

in cool woods eastward to Lake Superior.

- (24.) Pentstemon confertus, Var. caeruleo-purpureus, Gray (Prairie Pentstemon)
 —Tagish Lake. Common on the prairie and northward.
- (25.) Chenopodium capitatum, Wat. (Strawberry Blite)—Lake Labarge. Common throughout Canada.

(28.) Alnus rubra, Bong. (Red Alder)—Chilkoot Inlet. A fine tree on the Pacific coast.

(27.) Cypripedium montanum, Dougl. (Mountain Cypripedium)—Lewes River.

South in the mountains through British Columbia.

(28.) Allium Schoenoprasum, Linn. (Wild Chives)—Lake Labarge. River and lake shores throughout Canada.

(29.) Zygadenus elegans, Pursh. (Beautiful Zygadene)—Cañon of Lewes River.

Common on the prairies.

A small zoological collection was also made and sent out by Dr. Dawson. Those specimens collected on the lower river after he left, and on the Mackenzie, I brought out myself. They were all handed to Mr. James Fletcher, F.R.S.C., F.L.S. One of the specimens was given me by Mr. James McDougall, Chief Factor in the Hudson's Bay Company's service, who obtained it near the summit of the Taiva Pass. These specimens are classified as follows by Mr. Fletcher:-

(1.) Papilio Machaon, L., var. Alaska, Scud.—Three miles below summit of Chilkoot (Taiya) Pass (from Mr. McDougall), 15th July, 1886.
(2.) Colias Christina, Edw.—Site of Fort Selkirk, 17th August, 1887.

Those collected on the Mackenzie were:

(1.) Papilio Machaon, L., var. Alaska, Scud-Fort McPherson (Latitude 67° 26'). 21st June, 1888.

(2.) Pieris Napi, Esper.; Arctic from Byroniae. Oschs., var. Huld.—Fort

McPherson (Latitude 67° 26'), 21st June, 1888.
(3.) Anthocaris Ausonides, Bd.—Mackenzie River, 8th July, 1888.

(4.) Colias Christina. Edw.—Fort Good Hope (Latitude 66° 16'), 11th August,

(5.) Vanessa Antiopa. Edw.—Ninety miles above Fort Good Hope (Latitude

65° 20'), 19th July; Fort Smith (Latitude 60°).

This collection is small, I confess, but it must be remembered that a person cannot very well do two things at once, and at the times when insects generally are most about—clear, pleasant weather -a surveyor is busiest, and generally all the members of his party are busy too. Often have I seen butterflies and moths that I would have liked to catch, but have been occupied at the time with something which I could not leave, and so have lost the opportunity. Many specimens also of plants that I would have been pleased to collect, had to be passed, because at the time the canoes were in such a position that we could not stop without much trouble. Very few small animals of any description were seen. Of those which were strange to me a specimen of what I think is a shrew-mouse was brought out, and handed over to Mr. Fletcher for classification. I have not heard yet what it is.

SECTION 3.

EXPLORATORY SURVEY FROM THE PELLY-YUKON TO MACKENZIE RIVER BY WAY OF TAT-ON-DUC, PORCUPINE, BELL, TROUT AND PEEL RIVERS.

Having got nearly all my supplies down to Belle Isle, on the 3rd of March I left my winter quarters and started therefor with four of the party. Unfortunately, two of my men were unable to accompany me, having fallen ill. From Belle Isle we proceeded to take the supplies already there down the river to the mouth of the Tat-on-duc, using a miner's camp about five miles above it as a halting place on the way. All winter I had availed myself of every opportunity to induce the Indians to meet me at Belle Isle about the 1st of March, and assist me over to the head of the Porcupine, or farther if possible, but I could get no definite promise from them, and when the appointed time came I did not even know where they were, but supposed them to be up the Tat-on-duc. Meanwhile, I kept on hauling the stuff ahead as fast as circumstances would permit. On the 13th I had all the stuff down to the miner's

camp mentioned, a distance of twenty-two miles by the river, but a winter track, which I followed, by cutting off a large bend, shortened this to about fourteen. This track, however, was so rough and wooded that it is doubtful if it much lessened the labor.

The evening of the 13th an Indian came down to the miner's camp to feel around and see what could be made out of my necessities. As I was anxious to cross to the Mackenzie by this route I made him and his associates an offer of \$2.50 a day for each team of dogs with driver, if they would come and transport me, at least to the head of Porcupine, or, as they called it, Salmon River. This amount, though it would be considered low in the more southerly part of our territory, was about twice the amount heretofore paid in that section. He left for home to carry my offer to his companions, promising on his own behalf his support of it. Meanwhile, as there was no certainty that anything would come of this offer, I kept on with the party hauling down to the mouth of the Tat-on duc, and had got nearly half the stuff down there when, on the morning of the 16th, I met nine men and thirty-six dogs on their way to take me, as I understood, to the head of the Porcupine. The rest of that day was spent in cooking for the trip, and fixing things so as to take as little space as possible as the loads would be somewhat bulky. On the morning of the 17th I bade good-bye to the miners with regret, and yet with a thrill of satisfaction that I was now fairly started on the home stretch of my long journey, though over 2,500 miles yet lay between me and the nearest railway, nearly all of which had to be got over by foot or paddle.

Going up the Tat-on-duc I made a compass and track survey as I went along, taking the azimuth of points in the valley, and estimating distances by time and rate of travel. As no member of the Geological Survey staff was likely to pass here for generations, I paid more attention to the geology as I went along than I had heretofore done, and collected specimens of the different rocks I saw. These have

been handed over to Dr. Dawson.

As there are no features of special interest on Tat-on-duc and Porcupine Rivers a detailed description of them will not be necessary. When we were at the mouth of the Tat-on-duc the Indians, as I understood them, spoke of some place on the river where warm water comes out of the ground, and keeps the ice over it very thin. I tried to get them to point it out to me, but they either could not or would not understand me, for I saw nothing corresponding to their description anywhere along the river. For three or four miles from the mouth the valley of this stream is about half a mile wide at the bottom, with some fair timber in places. Then it narrows, and up as far as the forks it partakes more of the nature of a cañon than of a valley. While the valley continues wide the ascent in the river is not very steep, yet steep enough to prevent anything larger than a very small boat ever being taken up it. When the valley narrows the ascent becomes much steeper and gives one the impression of going up a hill. The water evidently freezes to the bottom in many places, as it is continually bursting up at the sides and overflowing the surface of the ice, where it is soon frozen. Hence in the spring the ice in places must be of enormous thickness. About eleven miles up, a creek flows in from the north. If I understood the Indians aright, it comes out of the side of the mountain some distance up; they described the water as being warm where it emerges, this being, perhaps, the place to which they had referred as mentioned above. Whether this is true or not, the water where it enters the river is not frozen, nor is it frozen for some distance below this point. This is the point from which the river takes its name of Tat-on-duc, or in English, Broken Stone River, for here it appears the river is always open, and there are many large masses of rock in the channel. Except on the theory of warm water coming into the river, I cannot account for its being open here at the time I saw it, when almost everywhere else it was frozen, even in places where the current is much swifter and rougher than here, where it is quite

The river up to this point averages about two hundred feet in width, but just above the open water described it turns suddenly to the south from an easterly

direction, and enters a cañon. This is one of the grandest sights I have ever seen; the cañon is forty or fifty feet wide, and the sides rise perpendicularly, on one side to a height of fully seven hundred feet, and on the other probably five hundred, and then slope off to the sides of high mountains. It is nearly a half mile long, and there is a slight bend near the middle, but not enough to prevent one seeing through it from end to end.

After passing through the cañon the river turns sharply to the east again, and continues in this direction till it reaches the forks, about fourteen miles above the mouth. One of the branches comes from the south-east and the other, the one I went up, from the north-east. The Indians often go up the south branch to hunt. As I understood them, it rises in a high plateau distant two or three days' travel, probably forty miles, and in the same plateau a stream rises which flows to the north, probably into one of the head streams of the Peel. At the forks the precipitous sides of the valley change into easily sloping wooded uplands, with here and there a high peak in the distance. The timber is all small, there being none larger than eight or ten inches in diameter.

The Boundary will cross the river a short distance below the forks. I pointed out to the Indians its approximate position, and made them understand its signi-

ficance, as I also did on the main river.

The Indians' camp was about nineteen miles up the river, and, as I arrived there on Saturday, they wished to remain until Monday. I agreed, and had the pleasure on Sunday of witnessing their religious service, of which I have already spoken. These Indians build their tents differently from any I have seen elsewhere in the Territories. The tent is made of deer skins dressed with the hair on, which are sewed into the proper shape, elliptical on the ground plan, and dome shaped in vertical section. Willows are fixed in the ground, then bent into the proper curves, and fastened together at the top; the deer skin cover is then placed over this framework, and the tent is banked around with snow. There is quite a large opening left in the top for an escape for the smoke; but, notwithstanding this, a small fire keeps it warm. On the ground it is about eighteen or twenty feet long and ten to fourteen wide. The thick coat of hair on the inside hinders the heat reaching the skin so that snow lies on the outside of the tent quite a while before it melts. Generally two or more families dwell in one tent.

The winter clothing of these people is made of deer skins dressed with the hair on, and worn with the hair inside. The pants and boots are made in one piece, and the coat is made in the manner of a shirt. In putting it on it is simply pulled over the head, and the arms passed down the sleeves, so that, when it is on, there is no opening for any wind to pass through, and no part of the body, except the face, is exposed to the atmosphere. In the case of children, sometimes the end of the sleeve is sewed up, so that the hand cannot get out, but this is done only when the child is going out. These people had killed a great many cariboo and moose in the vicinity,

but they would not tell me how many.

About twenty-five miles up the river we reach a small cañon; the water way is rough, but the sides, though perpendicular, are not high. About four miles above this the Indians report a small lake in a deep valley, which never freezes. They appear to have a superstitious dread of it, saying something about a strong wind always blowing into it, which makes approach dangerous. Around it, they say, many sheep and goats are to be seen, which I suppose can be accounted for by the fact that no one ever hunts there. They pointed out to me the position of the lake as well as they could from the river. It lies in a deep valley at the foot of a very high mountain, which they call Sheep Mountain, the height of which above the river I would estimate at least three thousand five hundred to four thousand feet. From the barometer readings along here, the river is not less than one thousand four hundred feet above the sea, so that this peak is upwards of five thousand feet above sea level. About three miles above this peak another small but very rough cañon is passed on the river. Three and a half miles above this there is, on the east bank of the river, a low swampy place, from which

there is an effusion of sulphuretted hydrogen gas. The odor is quite strong for some distance along the river. An Indian gave me to understand that there was much of the same gas escaping at the lake already referred to. If I understood him aright the danger of the lake is due to violent rushes of the gas, which makes men sick, so

that they fall down and roll into the lake.

A short distance further there enters from the east side a creek up which we had to go to avoid an impassable canon on the main river. According to the Indians this canon contains a high waterfall, which it is impossible to pass, and they describe it as the largest and worst canon on the river. We have to ascend this creek about four and a half miles, when we turn off it to the left, going up a narrow valley which lies between two high bald mountains, on the bare sides of which we saw many wild sheep feeding. The mountain on the west side of the pass I have named Mt. Deville; that on the east side, Mt. King. The bed of the creek by which we leave the river is wide and shallow, and the water runs on the top of the ice, thus continually adding to its thickness, till in many places it has the appearance of a small glacier. I am quite sure there are places on this creek where the ice remains all summer. valley extends eastward several miles, and is surrounded by high mountains. On the south side a curiously formed range skirts the edge of the valley for many miles. It rises sharply from the bottom upwards of two thousand feet to the west, and ends in a table land which seems level southward as far as the eye can reach. On the eastern edge of this table land there stands an immense wall, rising from seven hundred to one thousand feet above it. This wall has the appearance, from where I saw it, of rising perpendicularly on both sides, and its thickness I would judge to be about one third of its height. It is weathered into queer shapes, resembling in places the views of old ruins one often sees. In one or two places there are large holes in it, which are covered with several hundred feet of rock. One of the holes is so large that through it can be seen the plateau beyond. In the bottom of the valley there are many mounds of gravel which seem to have been placed there by glacial There probably was a small glacier in this valley at one time, but it does not appear to have extended any farther down than the river.

At the summit of the pass through the range between this valley and the valley of the main river a magnificent view of the valley is obtained. From this point up the valley is wide, with low sloping sides which end some twelve or fourteen miles up in a large plateau, and beyond this, some twenty miles, the peaks of the Na-hone range break the view to the north. This is one of the grandest views I have ever seen, and the profound stillness and vast solitude impress one as perhaps few other scenes in the world would. The descent from the summit to the river is two and three quarter miles, in which the fall is about five hundred feet, the barometer at the summit standing at 26.80, and at the river at 27.32 inches. This would place the summit of the pass roughly about three thousand feet above the sea Around it are peaks which rise at least two thousand feet above it. Some six or eight miles down the river the Indians pointed out the cañon. The valley appears to end there, the mountains

are so high and bold.

From the pass upwards the river is shallow, and there are places which look like small lakes, where the water overflows and forms large fields of ice, as in other places described above, but on a larger scale. Eight miles above the pass the river turns sharp to the north, and apparently comes from between two high, sharp peaks, the northerly one of which I have named Mt. Klotz. As far as can be seen, it is a field of ice fully one hundred yards wide, and of great thickness. In some places there are hillocks on the ice formed by the water bursting through, and freezing as it overflows. I have no doubt that much of the ice remains through the summer, and may not be wholly melted before the new ice begins to form in the fall, if indeed there is not ice forming during most of the summer months.

Leaving the river, and continuing about a mile up the valley of a small stream coming from the east, we reach the top of a low ridge which forms the water-shed between the waters of the Tat-on-duc and those of a stream which the Indians assured me flows into the Peel. I had much difficulty in understanding this, as I

could hardly believe that the water-shed was so near the Lewes, or Yukon; and it was not until they had drawn many maps of the district in the snow, and after much argument with them, that I gave credit to their statements. I then proposed to go down this stream to the Peel, and to reach the Mackenzie in that way, but at this they were horrified, assuring me as well as they could by word and sign that we would all be killed if we attempted it, as there were terrible cañons on it, which would destroy us and every thing we had; in fact, we would never be heard of again, and they might be blamed for our disappearance. Their statements, in connection with the fact that the barometer stood about 26.50 inches, showing an altitude of over three thousand feet which would have to be descended between there and the Peel, a distance of about one hundred and eighty miles, and probably most of it in the lower part, caused me to decide not to try it. This river has been named by Mr. J. Johnston, Geographer to the Department of the Interior, "Ogilvie River."

It seems improbable that this river runs as the Indians said, but I afterwards procured other evidence, which proves that it does. I may as well present the evidence here. None of the Indians who were with me at its head were ever down the river. What they knew of it they had learned from the Indians they had met at the Hudson's Bay Company's posts on Porcupine and Peel Rivers, where they formerly used to trade. They told me that they learned more about it at Peel River than anywhere else. Afterwards, in the month of June, when going up Eagle River, I met several families of Indians on the way down to La Pierre's House. One of them could speak a little English, and I got from him all the geographical information I could about the country he had just left. I asked him particularly about this river. He confirmed all that the others had said about it, told me he had seen it several times, and that there were some very bad places on it, places where, as he described it, trees passing down would be all smashed to pieces. He stated that the river we were then on—Eagle River—headed in a small lake, from which they floated down in six days. Hence I would judge the distance to be about two hundred miles by the river, but as the part of it I saw-about twenty-seven miles-was very crooked, and they assured me all the river was just as crooked, the distance in an air line would probably not be more than half the river distance, or one hundred miles. This lake was situated in a large swamp in which a small stream formed which flowed southward to the river in question. From the lake to the river, from their statements, I would judge to be twelve or fourteen miles. Afterwards, in conversation with Mr. McDougall, of the Hudson's Bay Company, I learned that he had often heard the Indians at Fort McPherson speak of a river rising near the Yukon and emptying into the Peel, and so impressed was he by their statements that he thought of utilizing it as a route from the Mackenzie to the Yukon or Lewes. Accordingly, in 1872, he got some Indians who knew the locality to accompany him to its confluence with the Peel, about sixty miles above Fort McPherson, but he found the country so rough, and the river so swift and so unsuited to his purpose, that he abandoned all thought of crossing in that way. The Indians had always assured him that he could not get through, but he wanted personal proof, which he got in abundance in less than two days. All this I think shows that the river runs as stated by the Indians. I thought it might be one of the branches of the Porcupine, and at La Pierre's House made inquiries of the Indians, many of whom had been up both branches of that river, but they assured me it was not.

From the plateau at the head waters of the river the valley can be seen running nearly due east for a distance of not less than thirty miles. It is wide and deep. The Indians told me that they sometimes go south-eastward from this point, or, from the head of the valley to the south of this, to the head of the south branch of the Tat-on-duc, and that, after passing the mountains close to the river, the country is undulating, not rocky, and more or less wooded.

At this point the Indians turned back. Nothing that I could say or offer to

At this point the Indians turned back. Nothing that I could say or offer to them would induce them to go any farther with their dogs, and it was with much difficulty that I persuaded two of them to go ahead with one of my men, and make a track as far as the head of the Porcupine. I paid off the men with the dog teams

on the morning of the 22nd of March, when they returned to their families. The other two, with my man, started for the head of the Porcupine, a distance of about fifteen miles. They returned on the 25th, and took their departure for home.

These people have a great dread of a tribe who, they suppose, dwelt at one time in the hills at the head of these streams and still exist somewhere in the vicinity, though exactly where they do not know. While on this plateau they spoke of them in a low tone, as though fearful that they would be heard and be punished for their remarks, which were not at all complimentary. They called this tribe Na-hone; I have generally heard the word pronounced Na-haune by the whites. It appears that they inhabited the head waters of the Liard and Pelly, and were much fiercer than the neighboring Indians. Probably rumors of their aggressiveness have reached these simple and peaceful people, and created this dread, for they do not appear to have ever seen anything to justify their fears, and when questioned they could not tell anything more definite than that some old man among them had seen some indescribable thing on the mountains when he was a boy, or at some other remote date. They described them as cannibals, and living altogether outside, without shelter from the cold, and believed them to be such terrible creatures that they required no cover, but could lie down anywhere to rest, and did not need a fire to cook their food, but ate it raw. They seemed to ascribe to them supernatural powers, for, when I was trying to induce them to go on farther with me, and showed them my rifle, and told them I would shoot any Na-hone who attempted to molest me, they gave their heads an incredulous shake, as if that was too much to expect them to believe. To whatever it is due, this dread appears to be lively, so much so, that I believe only some pressing necessity, such as hunger, would induce them to remain in this locality for any length of time, and then only if they were in strong force.

From the Tat-on-duc to the Porcupine by the track I followed is sixteen and a half miles. Of this distance thirteen is drained by the river flowing into the Peel. Distributed over this thirteen miles are ten small creeks, which unite eight or ten miles down the valley. I did not go down to the junction, but could from some places see the stream formed by their union, and although so near its head, it appeared to be as large as the Tat-on-duc is about midway of its course. This plateau, except for the ravines in which the creeks run, is tolerably flat. It slopes to the east down the river, and is, as far as can be seen, undulating and wooded. The timber is scattered, and stunted in size; but considering the latitude and altitude it is a wonder there is any at all, the former being 65° 25′, and the latter more than three thousand feet above the sea. Where the woods are open there is much fine short grass. On the creeks the willows attain a large size, as large as generally seen

in much lower and more southern countries.

From the watershed between this stream and the Porcupine down to the Porcupine there is a descent of four hundred and fifty feet in a distance of a mile and a half. Where the Porcupine is first crossed on this route it is a large creek flowing northward from between two mountains. The valley can be seen for about six miles up, when it turns to the west and goes out of sight. Thes tream flows in a bed of fine gravel, and the volume of water was large for the time of the year. About half a mile below this it enters a lake three or four miles long and upwards of a mile wide. At the lower end of the lake, which lies close under the foot of a lofty range of mountains, the river turns sharp from a northerly to a westerly direction, and in about a mile enters another lake of about the same size as the first one. About two and a half miles below this it enters another lake about two miles long and three quarters of a mile wide. These three lakes I have called the Upper, Middle, and Lower, Na-hone Lakes. Below these the river is twice the size that it is above. It flows in a valley about a mile wide well timbered on the bottom, much of the timber being of a fair size. On some of the flats are found many trees over a foot in diameter, long, clean-trunked, and well suited for making lumber.

About five miles below the lower lake a large branch comes in from the west. Perhaps this should be called the river, as it it is much larger than the branch I came down, both in width and volume of water. It comes from the south-west, and

has quite a large valley which can be seen from the junction of the two streams for a distance of eight or ten miles. The Indians had told me of a large creek down Porcupine River, heading near another creek which flows into the Lewes. They used to go up the latter creek, cross over to the Porcupine, and go down it to fish. From their description and the distance they said it was below the lakes, I first thought this creek to be the one referred to, but afterwards I saw another branch of the Porcupine further down, which is probably the one they spoke of.

Between the upper end of the upper lake and the lower end of the middle one there is a fall of two hundred and fifty feet, and between that point and the lower end of the lower lake a fall of one hundred and forty feet. Thence to the forks the fall is very rapid, as much as two hundred feet to the mile in some places. About a mile below the forks I found the fall in the river so slight that our canoes could be used with safety. As the labor of hauling my stuff was very severe, I decided to remain here until the ice broke up and go down in the canoes. Accordingly, on the 10th of April, after having got all the stuff and the canoes down to this point, I had a small hut built with a cotton roof, and here we remained until the 21st of May.

I will now refer briefly to the different kinds of rocks seen along the Tat-on-duc and Porcupine to this point. For the first two or three miles on the Tat-on-duc the rock is a very coarse-grained sandstone; in places it might be called conglomerate. At a place four miles up I saw a small exposure of clay shale, colored with oxide of

iron where exposed to the air.

Ten miles up the rock at the river level changes to limestone, but high up on the hills the sandstone can still be seen, appearing to be the principal constituent of all the mountains in sight. The limestone continues to the head of the river with occasional exposures of clay shale, in some places of carboniferous appearance. At one point, twenty miles up, occurred an exposure of it so closely resembling coal that at first sight I thought it was a large coal bed. I tried some of it in a fire. It gave off tumes of burning coal for a few minutes, and then became soft and formed a dark grey mass, somewhat resembling scoria, but soft.

Much of the limestone was stratified, but generally it was very massive, with thin veins of what appeared to be calcite, distributed irregularly, but exhibiting usually the cleavage forms of crystals of that substance. Sheep Mountain for about three thousand feet of its height appears to consist of this rock, while the upper part seems to be a sandstone like that seen further down the river. The curiously weathered wall-shaped rock I have described above also greatly resembled this sandstone, although at the distance from which I viewed it it was impossible to tell with

certainty.

On the Porcupine River the same limestone predominates. It might almost be said that it is the only rock, there being nothing else but one or two exposures of a bright red-colored close-grained rock, with some small rounded fragments of a bluish-colored stone imbedded in it. There is an exposure of this rock on a creek on the east side of the river a mile and a half below the forks. It underlies the limestone, and is not more than two hundred feet above the river at this place. It apparently continues westward under the drift in the valley, for a ledge of it can be seen under water in the river not far from this exposure. Eleven miles below the forks, about a mile up the valley of a creek on the east side of the river, another large exposure of this rock was seen, but not visited, and no more of it was seen below this.

The mountains about the head of the river rise to an average height of about 2,500 feet, with an occasional peak probably 1,000 feet higher. Between the valley of the Porcupine and that of Ogilvie River the mountains are high and serrated, possessing much more the character of a range of mountains than those on the west side of the Porcupine, where the surface has more the nature of a plateau with peaks rising out of it. The range between Porcupine and Ogilvie Rivers I have named the Nahone Mountains, as the Indians considered them the home of that people, as I have

already mentioned.

Looking down the river from my spring camp, on clear days, a lofty peak was visible about twenty or twenty-five miles away. It towered at least one thousand

feet above any peak seen near it. I have named this Mount Burgess after the Deputy Minister of the Interior. The top part seemed in the distance to be of different rock from the base. It rose perpendicularly from the débris on the slope, and was weathered into castellated shapes. It may be that a portion of the sandstone seen on the Tat-on-duc has been left on this high peak by denudation. I hoped to be able to get a closer view of it on my way down the river, but when I got down to its vicinity it was hidden by intervening peaks.

While waiting in camp on this river for the ice to break up I employed myself in plotting my survey from the Lewes to this point, and, when the weather permitted, in taking observations for magnetic declination, inclination, and total force. I also took transits of stars over the prime vertical, from which I found the latitude of the place to be 65° 43′ 00″. I tried on several evenings to observe the meridian transit of the moon for longitude, but could get nothing satisfactory, as at that time of year (May) there was twilight all night, and small stars could not be seen, so that I was restricted to first and second magnitude stars, which, unfortunately, on the nights when I could observe the moon, were few and far between. The mean of three transits is 139° 43′ 00″ west of Greenwich, but this may be in error several minutes.

The mean height of the barometer here during May was 27.60 inches, indicating an elevation of about two thousand feet above the sea level.

Notwithstanding the high altitude and latitude, the timber and shrubbery in the bottom of the valley grew as large and strong as on the upper Lewes, in five degrees lower latitude. Surrounding my camp was a timber-covered flat about two square miles in area, on which grew many nice trees upwards of a foot in diameter. Nearly all of these were spruce, but there were also some clumps of cottonwood, the trees in which averaged nearly as large as is the same species along the Athabasca and Peace Rivers. Willows are abundant along the streams, and grow as large as they generally do in other parts of the territory, being not unusually four or five inches thick. A few white birch were seen. No timber was noticed out of the immediate bottom of the river valley.

Owing to the isolation of this district animal life is abundant. Here, for the first time since we entered the Yukon basin, appeared indications of beaver, several of which we saw when spring came, and one we killed. Otter, too, were numerous, and a few marten were seen, but the latter were not plentiful in this vicinity. No rabbits were noticed, and the only indications of beasts of prey were a few tracks of fox and lynx. Ptarmigan were numerous. These are very pretty birds in the spring when they are exchanging their winter coat of snowy feathers for their summer garb, their color turning on the neck first from a pure white to a reddish brown. Numberless cariboo wander over the mossy slopes. These animals live on a moss which they find high up on the hill sides in the winter, and lower down in summer. I have seen hill sides on which the snow had been pawed over for upwards of a mile in length and a quarter of a mile in breadth, hardly a square rod of it being missed. The animals stand facing upwards, and pull the snow down towards them, uncovering a patch of their food, which cropped, they pull the snow above into its place, and so on to the top. I killed one of these animals, intending to use it for food, but found it so infested with parasitic larvæ underneath the skin (in every way resembling those found on cattle) that the thought of eating it was revolting. In the spring they are also very poor. Their numbers could not be estimated, as they abound throughout the district.

It does not appear that any Indians have hunted here for many years. Apparently their only visits to the district were in going to the Hudson's Bay Company's posts on the lower part of Porcupine River, and on Peel River, before trading posts were established on the Lewes by Harper, McQuestion & Co.; they used at that time to cross by a creek which I identify as one below this point, to be mentioned in its place, build rafts or skin boats, and float down to Bell River, up which they went to LaPierre's House, sometimes crossing to Fort McPherson. As nearly as I 58

could learn from them, it is seventeen or eighteen years since last they made this

journey.

Moose are very numerous, and seem to be much less fearful of man than in any other place I have seen or heard of. I had been told that in the winter the Indians pursue them on snowshoes, and run them down. This they actually do, but not until the snow is deep. One day I started after a moose intending to run it until I was close enough to shoot, but this I could not accomplish. It could not get away from me, but I could not gain on it. Had my snowshoes been large enough to support me on top of the loose snow I could doubtless have captured it; but often, when gaining fast, I sank above the knee in the deep, soft snow, and fell headlong. Before I could get under way again the animal had a fresh start. At last, having run fully five miles after the brute, I got tired of the unequal contest, and gave up the chase; but not before the moose showed signs of much distress, his tongue hanging out, and being so winded that he stopped whenever I did. I afterwards found that the snowshoes used for the purpose are made specially large, the rule being that the shoe is made the length of the man who is to use it, and about fifteen inches wide; while my shoes, though of that width, were only about two feet long. Had I used a pair of the proper size I have no doubt as to the result, as often, in deep soft snow, the moose have hard work to get along at all. Of course in shallow snow a man would have no chance in the race. In the winter months these animals live on the buds and young twigs of the willows, and such numbers of them had been near where we were camped that all the willows for miles above and below were cropped almost bare.

On 21st May the river near camp was so clear of ice that I thought it must be open all the way. I therefore started, but when I got three miles down I found the river solidly blocked with ice for miles. Here I was compelled to stay until the 28th.

Before continuing the passage down the river I will mention a few facts bearing on the climate. The lowest temperature in the month of April was on the 4th—37° below zero, and for six days afterwards all the minimum temperatures were below 30° below zero. The last time the thermometer registered a minus reading was the 5th May, minus 1°-8. The highest temperature in April was on the 30th—40° above zero. The highest temperature in May was on the 17th, 55°. The first time the snow showed signs of melting was 29th April. The first appearance of insect life was 30th April, when a small fly came out of the river in great numbers, flying about and crawling over the snow. The water in the river began to rise on 6th May. The first geese were heard flying overhead on 8th May; they were flying in a south-westerly direction, as though they had come from the Mackenzie. The common house fly made its appearance the same day. The first swans were heard 11th May. First mosquitoes seen 14th May. First cranes heard 15th May.

On the morning of 28th May we again started in our canoes for the Mackenzie. The river was not yet clear of ice, but sufficiently so to enable us to work along, waiting occasionally for it to move. Ten miles down a very large ice jam was reached, the river being full of ice for about a mile. This had raised the water up into the woods on both sides, so that we could not pack past it, nor could we find camping ground until we went back some distance. Here we were forced to remain the rest of that day. The following morning the jam had moved down so far that, with some difficulty, the dry land could be reached on the east side; so I decided to bring the canoes and equipage to that point and pack everything down to the foot of the jam, about three quarters of a mile. Just when we had finished this the jam burst, and cleared the river, leaving us no better off than if we had waited. The journey was

then resumed.

About six miles below this, or seventeen below the forks, a large creek comes in from the west. This is, I believe, the creek by which the Indians used to come over from the Lewes. Here are many old racks for drying fish, from which I call this creek the "Fishing Branch" of the Porcupine. The waters of this stream are

black in color, and clear, while the waters of the main stream are usually blue,

though at that time turbid.

While descending the river I determined roughly its fall by reading my barometer every half hour or so, and calculating the descent from the difference of readings. In this way atmospheric changes would affect the result but little, as the change could be but small in such short intervals of time, while the descent was quite rapid. There are no dangerous rapids on this river, but it is all swift, running over a bed of lime gravel. The fall barometrically determined, between the forks and the tributary last mentioned, was three hundred and ninety-five feet, but the greater portion of this was in the upper half of the distance.

Just below the Fishing Branch another extensive jam stopped any further progress for the day. Next day the journey was resumed, but through and over ice for about eight miles, when another impassable jam was encountered. It was piled up until the water filled the whole valley, but by wading, packing and canoeing through the woods it was safely passed. Here I made an ascent of one of the hills bordering the river, and found it to consist of the limestone already mentioned as constituting the bulk of the mountains further up. The timber was much the same, with the addition of some small tamarac, The journey was resumed in the evening. At one point there is a sudden turn in the river, and just below it a rapid which is very rough, but has no rocks in it. This was entered before there was any time to stop, and it had to be run, with no other mishap, fortunately, than one of the canoes fill-

ing with water and nearly sinking before we got through.

Twenty miles below the Fishing Branch the river leaves the mountains, the last peak near it being on the west side, and so close that the river runs under its base. This I have called "Mount Dewdney" after the Hon. the Minister of the Interior. It is of the same limestone formation as all the others. No sign of stratification was observed along the Porcupine, nor were traces of organic remains anywhere seen. Mt. Dewdney rises about two thousand five hundred feet above the river, or nearly four thousand feet above the sea, the river here being about one thousand three hundred feet above sea level. The fall from Fishing Creek to the base of this mountain is three hundred feet. As far as can be seen from this point the mountains trend east and west. Those on the east side of the river were apparently not so high, and they gradually sloped off as if another deep valley pierced them at no very great distance to the east.

From here down the river winds through an undulating and wooded country, the banks being nowhere more than eighty to a hundred feet high, and generally consisting of clay, with occasional exposures of a black shale, which decomposes into a rich black clay. The timber on the uplands, though thick, is not large enough for any other purpose than fuel. This description answers generally for the whole valley down to the mouth of Bell River. In the bottom, close to the river, there are scattered clumps of spruce that would make fair lumber, but not sufficient to induce any one to think of it as an article of trade. About thirteen miles below the mountains a large rock exposure occurs on the east side of the river. It extends for about half a mile, rising three or four hundred feet above the level of the river, and is weathered into fantastic resemblances of old buildings. I have called it Cathedral Rock from its resemblance to some old churches I have seen pictured. The rock appeared to be limestone, but I am not sure. It may have been sandstone, but as it was some distance from the river I did not take the trouble to go to it.

About twenty-five miles below the mountains, and three or four miles to the west of the river, a high, wooded, terraced ridge rises out of the plateau; another one, much the same in appearance, can be seen further west. They appear to be the result of denudation. A smaller one is seen below this about three miles.

About thirty-eight or forty miles below the mountains a large tributary comes in

About thirty-eight or forty miles below the mountains a large tributary comes in from the south-west, but I noticed no valley in the mountain range out of which it appeared to come. It is probable that it skirts the northern edge of the hills for some distance west, and is fed by small streams issuing from them. Above this tributary the current, though not rough, is generally so swift as to prevent steam-

boat navigation. Below the junction no difficulty would be found in running steamers of moderate power. What draught the summer stage of water would allow I had no means of determining, but I think a flat-bottomed boat drawing two to two and a half feet could always find water enough. I used to try with my paddle where I had reason to think it shallow, but never found bottom, and, as the banks are flat and low, it seems likely that there is not much variation in the height of the water in this part of the river.

About a mile and a half below this stream the river is joined by another from the south-east, apparently as large as the one I came down. The average width below the mountains of the river I had followed was from one hundred to one hundred and fifty yards. The width of the other branch is about the same. I afterwards learned that the Indians in the vicinity of LaPierre's House go up this branch to the mountains to hunt. The band that most frequents it was up at its head when I passed, so that I could learn nothing definite about it. The fall from the mountains down to the mouth of this branch is four hundred and sixty feet, one thousand and fifty-five feet in all from the forks above my spring camp, the distance being about seventy-eight miles, and from the Lower Na-hone Lake the fall is about one thousand three hundred and fifty feet in a distance of about eighty-two miles. From this we get the altitude of the confluence of these two large branches as approximately nine hundred

and fifty-five feet.

From this point down the fall is not noticeable by barometer, and the current is very slow—so slow that a head wind of twenty miles an hour would almost drive the bare canoe up stream. Below this to Bell River the river runs through an undulating country, covered with small spruce, white birch, and some cottonwood. The soil is all clay, and if the climate would permit, it would rank well as an agricultural country. There are some exposures of much weathered clay shale along the river. Below the junction of the two branches the river averages from two to three hundred yards in width, with banks twenty to forty feet high. From the junction to Bell River the distance by the survey is about sixty-seven miles; but it must be borne in mind that this measurement does not follow the windings of the river, which would about double it. Sights were taken from point to point in the valley, and the distances estimated. The river is in general very crooked, and there are some large islands in it. The barometer readings were noted at frequent intervals to get the fall in the river; but as the fall was very gradual, not much reliance can be placed on the result obtained in that way. However, I give it for what it is worth. In the last stretch it was one hundred and therety-five feet above the sea. I have a check on this result, which will be given further on.

Bell River enters the Porcupine from the east. At its mouth and as far up as its confluence with Eagle River it is about one hundred yards wide, with low banks thinly wooded. To the north at some distance are high hills, wooded well up the slopes. The Rocky Mountains can now plainly be seen to the east twenty to twenty-five miles away. I got a poor observation for latitude at the mouth, and

found it to be 67° 19'.

For about ten and a half miles the general direction of the river is north-east, it then takes a general south-east direction for nine and a half miles to where Eagle River enters from the south. By mistake I went up this river one day's journey, about twenty-seven miles. Here I met some Indians who had been hunting at its head waters, and were now on their way down to LaPierre's House. The country along it, as far as I went, is flat, and near the river timbered with spruce and cottonwood of the same general character as that on the Porcupine. The soil is generally clay, but occasional sand banks overlie the clay to a depth of fifty to one hundred feet. These banks are few and isolated from each other, and appear as if deposited by a sea, the intervening tracts being afterwards washed away. About six miles from Bell River an exposure of coarse-grained sandstone, much resembling that on the Tat-on-duc was seen, but it is stratified. The strata, however, are thin, not more than a foot in thickness, and much bent. This exposure could be seen

along a bend of the river for two hundred yards only, and rose but ten to fifteen feet above the water. As far as I followed it, this river is very crooked, with a moderate current. Just above the sandstone exposure there was a slight ripple, while another just below it showed shallow water—only three feet. I understood from the Indians that this spot is very shoal in low water, there often being not enough water to float a canoe over it. They described the whole river as much the same in character as the part I saw, and the country along it as generally flat, and all timbered. They say game is plentiful along it. They had gone up in March and hunted until June, when, some of them having made rafts and others skin boats, they came down to dispose of the furs they had captured. To make a skin boat they sew together the necessary number of deer or moose skins, raw, with the hair taken off. A keel is laid down, and willow ribs and frame work of the proper dimensions attached to it. The skin cover is then softened in water, and stretched over it; then, when dry, the skin is well rubbed with melted fat. When the trip for which it was built is over the skins are taken off and used for other purposes.

When I learned from these Indians that I was on the wrong river I at once turned back and reached Bell River at one o'clock a.m., having started at nine. The sun could occasionally be seen down the valley of the river to the north, well above the horizon. The people in this district, in the summer months, do nearly all their travelling and labor during what, in our latitudes, would be the night, of which, at this season of the year, they have none. Their reason is that it is cooler to labor

then, and warmer in the day hours to sleep.

I induced one of the Indians who could speak a little English to accompany me to LaPierre's House. After resting a few hours at Bell River after our long day's labor, we started. On the way we had to break through three ice jams. It surprised the Indians much to see us dash our canoes on a sheet of ice, and often break it in that way. If the ice proved strong enough to carry us we got on it, hauled the canoe across, and embarked again, to repeat the operation on another mass. The ice by this time was generally pretty rotten, but often masses of sound ice upwards of five feet thick were encountered. When one gets into a jam of this kind he has to keep a sharp lookout, lest his canoe be crushed, and often, to save it, he has to jump upon the ice, and haul out his canoe as quickly as he can. We labored hard in this way all day, and reached the House about nine in the night, or rather afternoon, of 6th June. There were many natives here, and our canoes and outfit generally were a great novelty to them. Our Indian's account of how we worked with them through the ice astonished them greatly, and they thought the white man's canoe almost a creature of life and spirit.

June 7, I spent at the House. I intended to determine the latitude, but just before noon the sky clouded, and all I could get was a very poor meridian altitude of the sun, through clouds. This gave me 67° 23′ 41″. I observed for magnetic dip and total force, but not for declination, as I had no means of determining the meridian

reading of the instrument.

A mile above Eagle River, Rock River flows into Bell River from the south-east. It is about fifty yards wide, shallow, and in its bed are many large rocks—hence its name. The Indian with me told me it rose far up in the Rocky Mountains, and that it took many days to reach the head of it. He pointed out from its mouth its general

direction, which is about south-east.

About three miles above Rock River there is a slight rapid, which, however, would not prevent navigation. At this point on the east side of the river is a high rock cliff, consisting, as I supposed, of clay shale; but as Mr. R. G. McConnell, of the Geological Survey staff, passed through here on his way down the Porcupine, he no doubt has examined it, and reported upon it, as well as upon all other rocks in the vicinity.

A short distance below the House, Waters River enters from the north-west. It is a stream about forty yards wide, and appears to have a considerable volume of water. It is said to be forty to sixty miles long, rising in a range of mountains

which can be seen from its mouth.

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About five miles above the House in an air line, but much more than that by the river, which is very crooked, Rat River joins from the east. It is a small river—in fact is hardly worthy of the name. On it LaPierre's House was first built, but wood getting scarce it was moved to its present site. Only a short time must elapse before it will have to be moved again, as wood is getting scarce near its present position and has to be hauled some distance. The post here is kept up mainly for the meat it furnishes, the country around it abounding with game. The tongue of the deer or the moose is considered a delicacy, and the Indian generally brings it to the post, as he gets more for it than he would for an equal weight of other meat. The clerk in charge informed me that he had sent away that year thirteen hundred tongues to other posts, so that probably about two thousand animals were killed in this vicinity.

Bell River is named after Mr. J. Bell, of the Hudson's Bay Company, who crossed to it and descended it to the Porcupine in 1842. He also followed the Porcupine below the junction for three days. Porcupine River, I understand, was called so on account of the numbers of that animal that existed in its valley. Why Eagle and

Rat Rivers were so called I did not learn.

The route always travelled from this post to Fort McPherson crosses the mountains in a pretty direct line. There are two routes, one for winter travel and one for summer. The distance between the two points is called about eighty miles, and it

generally takes three days to make the trip.

All the trading outfit for LaPierre's and Rampart Houses has to be brought this way in the winter months on dog sleighs, and the furs and meat received for it have to be taken to Fort McPherson in the same way. From there the furs are sent out by the Mackenzie. This is so costly and slow that in 1872 Mr. James McDougal, (now Chief Factor), then a clerk in the Hudson's Bay Company's service, thought of trying some more convenient and expeditious way. Accordingly he made an exploration and survey of a pass through the mountains to the north of this route, with a view to building a waggon road through it, and using oxen to transport the goods from one waterway to the other. I went through this pass on my way to

Fort McPherson, and will describe it in its proper place.

Mr. McDougall, also, in July, 1873, when the water was unusually low, made soundings in Bell and Porcupine Rivers to determine the practicability of steamboat navigation, carefully examining both rivers in places suspected of being shallow. Between LaPierre's House and Yukon River he found five shoal places, where the depth was less than four feet. The depths and localities of these he has kindly furnished me. The first is at Sinclair's Rock—in the rapids I have mentioned as being below LaPierre's House. Here the shallowest place was three feet six inches deep. Next, a short distance below Bell River, in the Porcupine, he found only two feet eight inches. This place he considers could be easily improved. Approaching it, for one hundred yards the water is three feet deep; then occurs rock (sandstone, he thinks), with a depth of water two feet eight inches for ten yards, when it suddenly drops to four feet. The other three places are between Rampart House and the Yukon, and consequently in Alaska. Their depths in the order of descent were, respectively, three feet ten inches, three feet six inches, and three feet four inches. At one of these places there was an island close to one shore and Mr. McDougall naturally took the wider channel to be the deeper, but he afterwards learned that the narrow channel was quite deep.

On the morning of 8th June I started from LaPierre's House to go up Bell River to the pass above mentioned as having been explored and surveyed by Mr. McDougall, having as a guide the Indian I had brought from Eagle River, who had been through the pass once or twice and was supposed to know all about it. I carried on the survey, as on the lower part of the river, by taking compass bearings of prominent points on the river and estimating the distances to them. In this way I made the distance to the point at which we leave Bell River to go through the pass to be about twenty-one miles; yet, owing to the many and long sinuosities of the river and detentions from ice jams, one of which delayed us half a day, it was three days

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before we arrived there. The current is nowhere strong, but there are some shoal places where the heavy ice, fully five feet thick, grounds and piles up until the

accumulated water behind pushes it over.

On the morning of the 12th my guide told me that most likely we would reach the mouth of the creek, which flows from the pass, about dinner time. Judge my surprise, therefore, when a few minutes after starting he pointed to the mouth of a stream almost hidden by willows and alders, and asked if I thought that was the creek in question, and when I said "No," he assured me it was. I could not believe him until I went ashore and found the preparations that had been made by Mr. McDougall to build a storehouse in which to deposit the goods brought through the pass. I may here call attention to the length of time hewn timber in this country will preserve a fresh appearance. Here were trees cut, and sticks hewn in 1872, yet had I been asked what length of time they had been cut I would have answered "A year or so." I noticed the same thing on the upper Porcupine—cuttings there seeming to me to be only a few months old; yet I knew from what the Indians told methat they were quite as many years as I thought months.

The canoes were put into the creek, which is only thirty to forty feet wide. For the first two or three hundred yards the water was deep, and smooth enough to paddle along with ease, but then came the end of our pleasure. The creek for about a mile and a half was one continuous rapid, not dangerous, because there was not enough water to hurt anyone, but so shallow that it would hardly float the canoes when all the men were out of them; so we had to wade in the ice water, while snow was falling, and drag our canoes, with our outfit in them, over the bars and stones in the creek, until at last even that comfort was denied us, for we reached a part of the stream where the ice was still solid, and at least ten feet thick, so that everything had to be packed for nearly a mile, to where the creek was again clear of ice, when we re-embarked and floated up about three miles in a straight line, but certainly twice that distance by the stream. Here everything had to be carried about four miles across the watershed of the pass to a creek which flows into Trout River, a tributary of Peel River. On the summit of the pass are several lakes, which, had they been open, would have reduced our packing to less than half a mile; but the ice was still solid, with only a few pools of open water around the edges.

On the morning of the 15th everything was got across to waters flowing to the Arctic Ocean, but the creek was so full of snow and ice that it did not help us much, and, although it was only three and a half miles to Trout River, the whole day was consumed in getting there. This pass, which I propose to name McDougall's Pass, after the man who first explored and surveyed it, is wide and level, the valley being nearly a mile wide at the bottom, and very flat. It is almost treeless, only a few stunted spruce being found near the lakes, and a few willows on the creeks. Some coarse grass grows in the valley, but when I was there, there was no sign of growth. The distance from Bell River to Trout River I estimate to be fourteen and a-half miles. On the north side of the pass I have named two prominent peaks "Mt, Dennis"

and "Mt. Russell."

I may say here that I compared notes of survey with Mr. McDougall, who measured his distance with an error probably not greater than one in a thousand. His survey followed the valley of the pass from bend to bend and cut off many turns in the river, while mine followed the course of the river more closely, and is consequently somewhat longer, the actual difference on the whole distance being about five miles; but when I take off my plot a length corresponding as nearly as possible with a line of Mr. McDougall's survey, I find the difference very slight. Many of his pickets were still standing, with a piece of sod on top of them, as fresh-looking as though they had been planted but one year, instead of sixteen.

Returning now to the question of altitude, I will calculate the height of the

summit of the pass from that of the mouth of Bell River, and compare it, found in

that way, with the altitude deduced from the descent of Peel River.

I have put the altitude of the mouth of Bell River at eight hundred and twenty five feet; allowing a rise of a foot to the mile in that river we get eight hundred and 64 [PART VIII]

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fifty feet for the altitude of LaPierre's House. Continuing the same rate to the westend of the pass we got about nine hundred and twenty, the distance by the river being about seventy miles. By barometer readings the difference of elevation between Bell River and the summit of the pass is about two hundred and fifty feet, but this determination is unreliable on account of the length of the time elapsed between the readings at the two places. From the appearance of the slope I would estimate the rise to be not more than two hundred feet, if indeed as much; but, assuming the barometric height as correct, we have eleven hundred and seventy feet as the altitude of the summit. While going from the summit down to Peel River I determined the rate of fall by half-hourly readings of the barometer, as I did on the Porcupine. This gave the fall from the summit to slack water on Trout River as eleven hundred and thirty feet. The last point is seventy or eighty miles from the Arctic Ocean, and probably as many feet above it, thus making the height of the pass about twelve hundred feet, or only thirty feet more than the determination by way of the Porcupine. It cannot be claimed that either determination is correct, or that this close agreement is anything more than chance; yet, it is much more satisfactory to have them so than with a large difference.

From where we enter Trout River by this route to the head of slack water is about twenty-four miles by the river. In this distance the fall is one thousand and ninety feet, but to determine what the grade of a road built on this, by far the steeper side of the pass, would be, we have to assume a nearly straight line, instead of following the bottom of the river valley. This would reduce the distance to about twenty miles, thus giving an average grade of fifty-five feet to the mile on this side of the pass. This is not too great for any kind of roadway which may be built here.

The Indian with me said that both Bell River and Trout River rise far up in the mountains; that he had been several days' journey up both, and that there they were still quite large. He also said that Bell River, a short distance above the pass, is rough, with a generally swift current and many small rapids. Trout River, where we strike it on this route, is about fifty yards wide, shallow, and very swift. The mountains on both sides rise two or three thousand feet above the pass, with many isolated, high, sharp peaks. Most of the rock I saw was granitic; some quartzite is found on the south side of the pass at the summit. Mr. McDougall, who appears to have travelled all through the mountains in this vicinity, told me of an immense dyke which he saw in the hills on the south side of the pass. He described it as bridging a deep and wide rayine, presenting the appearance of an immense wall across it. Three or four miles down Trout River from the pass a small specimen of asbestos was picked up in the drift in the river. In a conversation with Mr. McDougall I mentioned this and asked him if he ever came across any of it in his ramblings through that district. He informed me that not far from the place where I found the specimen there were several veins of it at the foot of the slope on the south side of the river. The rocks seen along the river here are not the rocks usually associated with absestos, but Mr. McDougall's evidence is that of an eye-witness.

Ten and a half miles down the river we reach the cañon. Here we are out of the mountains, and the character of the rock along the river changes completely, being here sedimentary. The walls of the cañon are a stratified sandstone, the top strata appearing to be harder than those lower down. There are exposures of this rock all the way down to the foot of the swift water. I never could stop when near an exposure to examine it, as there was always a rapid alongside it, but it resembled in appearance the friable sandstone seen throughout the North-West.

At one place, while I was running past a cliff in a rapid, I saw what seemed to be a coal seam in the face of the cliff. It was three feet or more thick, and extended the whole length of the cliff—about a quarter of a mile. I told Mr. McDougall of this, and he informed me that he had found the same seam, and had taken some of the coal to Fort Simpson, to be tried in the blacksmith's forge there, and it was pronounced a fair quality of coal. The last rock exposure seen in descending the river is just at the foot of the swift water. On the north bank there is a low cliff of

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soft red sandstone, much weathered, as well as worn by the water of the river, which shows its softness.

The walls of the cañon, in which the river takes a sharp turn, are about eighty feet high. On the outside of the curve the walls are perpendicular, but on the inside they are not so steep nor so high. It appears as if there had been at one time a fall over this sandstone barrier, since it extends completely across the river valley, and is not more than a hundred and fifty yards thick. Above the cañon the river is generally wide and shallow. In many places it is spread over gravelly flats, so that in very low water one could easily conceive the river flowing through without any water being visible. The fall in the ten and a half miles is three hundred and sixty feet. The current is always swift and rough, but there is no danger in navigating it in canoes, excepting a liability to rub the bottom once in a while. The fall is uniform to the canon, but below it there is a succession of rapids with short intervening stretches of easy water. The fall between the canon and the head of easy water is seven hundred and thirty feet, which, in a distance of fourteen miles, gives fifty-two feet descent to the mile. This would not be at all dangerous over a uniform slope and a smooth bottom, but divide it into two or three rapids, and throw a lot of large rocks into them, and it makes running through them in a small boat exciting, to say the least. Fortunately for us, we got everything through safely, the only inconvenience being that the canoes had to be bailed out at every rapid. It is often said that "it is the unexpected that always happens." This, my experience on this trip verifies in a small way. My canoe had come through all the various vicissitudes and dangers of a thousand miles, and had safely run over this the last rough water it would have sto encounter, but in the last yard it struck on the end of an unseen stick, which fractured the side so that the canoe would have filled in a short time. It was unloaded, the fracture filled with white lead, the side pressed back to its original shape and fixed there by a piece fitted to the inside, and rivetted with wrought nails, and the cance was again to all intents as good as before.

Mountain goats and big-horn sheep abound in the hills around the pass. While going through I saw how the Indians, by stratagem, sometimes secure cariboo and moose, when the snow is not deep and they are consequently hard to approach. A ravine which is full of snow is selected, and round it, on the lower side, is built a brush fence, which is extended outwards and backwards to the uplands on each side, diverging until the ends are some miles apart. The fence consists merely of crotched sticks stuck into the snow at suitable distances, with poles laid horizontally in the crotches, due care being taken to cut and mark it so that the agency of man in its erection is made very evident. A party then scours the country around the mouth of the trap, all the time gradually approaching it, driving any animals in the vicinity, by noises and other means, between the arms, which the brutes avoid as soon as they see. They are thus gradually driven to the snow pit at the end where they are easily despatched. Had the brutes sense enough they could easily dash through the fence, but they will not approach it.

From the foot of the rapids to Peel River the current is very slow, and about four miles down the river branches, the southern branch spreading out into numerous lakes, in which we were a day paddling around trying to find our way out. In most of them the ice was still floating. Had the Indian taken the north channel we would have saved nearly a whole day in time, but he thought the south channel was the right one until we were lost in it, and then recollected that we should have taken the other one. These channels join again below the lakes and continue on to Peel River.

The surface here is flat and swampy with much good timber. Although this was the most northerly point reached (about 67° 45') the trees on this flat were as large on the average as those seen anywhere else on the survey. The Indian told me they called this part of the river Poplar River, from the fact that much of that wood grows along its banks near the mouth. That poplar grows on it is no very distinguishing feature, so I propose to name it Trout River, from the abundance of trout 66 [PART VIII]

that are caught in it up in the mountains. According to the Indian's story they are

very abundant.

Two streams join Trout River, one a mile below the cañon, and the other just at the foot of the rapids. The first is about as large as Trout River above the confluence. The Indian gave me its name in his language, but it was almost unpronounceable. When translated it was in English "The river that is filled with snow." This name is given because up in the mountains the valley is drifted full of snow in winter, some often remaining until the next winter. He said if we went up the valley we would see the water running under snow arches for long distances. I had seen a similar phenomenon on a small scale for two miles on a creek in McDougall Pass. The river comes from the south, and the trail from LaPierre's House to Fort McPherson crosses it. The other river, called Long Stick River, comes from the north-west, and is not more than eighty feet wide at its mouth.

Peel River was reached on the evening of the 19th June, and on the morning of

the 20th, at eleven o'clock, we arrived at Fort McPherson.

SECTION 4.

Exploratory Survey from Fort McPherson to Fort Chipewyan by way of Peel and Mackenzie Rivers, Great Slave Lake and River, and Lake Athabasca.

Fort McPherson is built on the east bank of Peel River, some fourteen miles above the point where it divides and joins the Mackenzie delta, which is common to both rivers.

The fort stands on a high bank, consisting of gravel, under which some shale can be seen close to the water. About a mile down the height of the bank decreases from fifty feet or thereabouts to ten or twelve, and consists wholly of alluvial dp osits. The river at the fort is about half a mile wide, with moderate current.

The country surrounding the delta of the Mackenzie has evidently been a part of the Arctic Ocean which has been filled up with deposits brought down by the river.

On this soil the growth of timber is, for the latitude, very large and thick, many spruce of from twelve to fifteen inches diameter occurring along Peel River, as well as along the Mackenzie for some miles up.

At Fort McPherson I at once set about making preparations to resume the micrometer survey and carry it from this point to Fort Chipewyan, on Lake Athabasca, there to connect with my micrometer survey of Athabasca and Peace Rivers.

The 21st and part of the 22nd of June were spent in this way.

On the 21st I tried to make some observations for latitude; but as the sun never set I could get only one or two meridian altitudes of first magnitude stars in addition to that of the sun. The instrument used was faulty, so that the result, 67° 26′, cannot be accepted with much confidence, as it may be in error a minute or more.

I observed on the sun, east and west, for azimuth, and that night did what no other Dominion Land Surveyor has, I think, ever done, viz., took the sun's lower or

midnight transit across the meridian for time.

On the 22nd I took a set of magnetic observations, and all the necessary preparations for the survey being completed, started the work at six o'clock that even-

ing, completing about seven miles.

I could find no one around McPherson who knew much about Peel River, and as my own observations were confined to that part of it below the fort, I am not able to say much about it. The distance from the fort to where the river branches into the Mackenzie delta is thirteen miles, and through the delta to Mackenzie River proper, thirty-one and a half miles.

Between Peel River and the Mackenzie about two thirds of the channel in the delta averages more than a quarter of a mile wide; the remainder about one hundred yards. All of it was deep when I passed through, and the Hudson's Bay Company's steamer "Wrigley," drawing five feet of water, finds no difficulty in navi-

gating it.

The banks do not rise more than ten or fifteen feet above the water, and the current is continually wearing away the soft deposit and carrying it down to the lower part of the delta and the Arctic Ocean.

Where we enter the Mackenzie proper the channel is three fourths of a mile wide, but it is only one of four, there being four large islands there. The whole

width of the river cannot be less than three or four miles.

Looking northward down the westerly channel the view is bounded by the sky, and widens in the distance so that one can fancy he is looking out to sea. This can hardly be so; but, from the altitude of the bank where I stood, added to my own height, the horizon must have been six miles away; and a bank in the channel of equal height to that on which I stood would have been visible twice that distance. Now, if the supposed bank was timbered, as was that on which I stood, it would be visible ten or twelve miles farther, but none was in sight.

From the entrance of the small channel of Peel River to the head of the upper island in the Mackenzie is nine miles. From the west shore to the southerly point of this island is a mile and a quarter; from the island to the east shore the distance is nearly as great, showing the river to be more than two miles wide at this point. However, it gradually narrows, and five miles above this is little over a mile wide, which it averages up to the narrows, about sixty miles from Fort McPherson, or

twenty-eight from where we entered it.

A north wind raises quite a swell here, and the salty odor of the sea air is quite perceptible above the delta.

The banks continue low and the country flat on both sides of the river for some

nine miles above the islands.

The shore on the east side is sloping, while that on the west is generally perpendicular, showing the action of the current, which is wearing into and carrying away portions of it. This form of bank changes into steep shale rock, that on the east being about fifty feet high and that on the west apparently sixty to eighty. Both banks are perpendicular, and gradually increase in height as far as the Narrows, where they are probably one hundred and fifty feet above the water. The easterly bank through the Narrows is almost a sheer precipice to the water, but that on the westerly side is not quite so abrupt.

Red River enters the Mackenzie on its west side just at the toot of the Narrows. It is about two hundred yards wide at its mouth and appears to be shallow. As far as I could learn from persons acquainted with the river, it comes from a flat, swampy

country.

A winter trail crosses from Fort McPherson to the Mackenzie near the confluence of Red River, and the surface of the country along it is said to be covered

with woods, marshes, and ponds.

In the Narrows the Mackenzie is nearly three-fourths of a mile wide for a distance of five or six miles, when it expands to its normal width of a mile or more. In one part of the Narrows there was not more than five feet of water on the west side of the river for some distance out from shore. In low water this becomes bare, and reduces the width of the river to half a mile for a short distance. Hence, this place is called the Narrows. The current here is swift, being not less than four and a half miles per hour. Coming up the river, we turn sharply at this point from south-east to north-east, but after passing the Narrows we resume the former course.

A few miles above the Narrows the banks change from rock to clay and gravel, and continue generally steep and high as far as Fort Good Hope. In a few places the bank recedes from the river for a short distance, forming a low flat, on which generally grows some fair spruce timber. I noticed that these flats are being eaten away by the action of the current and waves. The greatest extent of level ground I saw is at the site of old Fort Good Hope, on the west side of the river; but, as I came up the east side, I cannot say exactly what the timber there is like, but judging from its appearance at the distance of a mile it is large and long.

From the delta up the river is clear of bars and islands during the stage of water at which I saw it, for a distance of about eighty miles. It then widens to

two miles or more, and there are some scattered bars and small islands. The current is uniform, as one would expect in such an immense volume of water, and never exceeds four miles an hour. There are many places where, looking up and down the valley, the view is bounded by a water horizon, and it has more the appearance of a lake than a river.

Wherever possible the width of the river was determined by triangulation. Between the Narrows and Fort Good Hope it is never less than a mile wide and is

often more than two, even reaching three miles at some points.

Since I followed the shore, I cannot speak of the depth of water from personal observation. Capt. Bell, of the Hudson's Bay Company's steamer "Wrigley," informed me that the shallowest water found by him in any part of the river, in what he considered the channel, was eleven feet. But as, when I saw him, he had made only two trips on the lower river, he could not speak very definitely as to its depth. Sir Alexander Mackenzie, who discovered the river and descended to its mouth in July, 1789, had a lead line with which to make soundings; but, in the swift current a short distance above Fort Simpson his lead caught in the bottom, the line broke, and the lead was lost. I have the depths according to him, and will give them in their proper place. One would expect, in such an expanse of water as this, to find some of it shallow, but it appears from all the evidence I could gather that vessels drawing from eight to ten feet of water would find no difficulty in navigation as far as Great Slave Lake. Although the river is reported to be shallow where it leaves this lake, doubtless a channel could be found affording the draught above mentioned.

No rivers of importance flow into the Mackenzie between Red and Hare Indian Rivers. Sixty miles above Red River a stream one hundred yards wide enters from the north-east. I think this is a river which an old man at Fort Good Hope described to me as one up which a Hudson's Bay Company's officer went many years ago to its source, which he found to be not far from the head waters of Anderson River, which flows into the Arctic Ocean. It would appear from the old man's statement that several trips up it have been made since; but his information was vague, and I afterwards met no one who could give me a reliable account of this

river.

One hundred and thirty miles farther on Loon River enters from 'the east. This river is from eighty to one hundred yards wide. The person from whom I received my information concerning the last mentioned stream had also explored this one for some distance and gave me the following notes: For eight miles there is good canoe navigation, then a rapid half a mile long occurs, at the head of which is a lake about three miles long and one broad, in which the Indians catch many fish. This is called "Rorrie Lake," and some distance above it is another some two miles in diameter, and called "Round Lake" from its shape. Above this again there is a succession of lakes for many days' travel.

Twenty miles above the mouth of the last mentioned stream, Hare Indian River flows into the Mackenzie on its east side. It is about two hundred yards wide at its mouth, and is said to preserve this width for a long distance. The Indians report that this stream rises in a range of hills on the north-west side of Great Bear Lake, but about its navigability I could learn nothing. There was an old Indian at Fort Good Hope who had been up to the head waters of this river several times; but, because he saw me taking an observation in daylight, and learned that I could see the stars at that time, he would give no information, saying: "A man who could

see stars in daylight could just as easily see the whole river.'

Fort Good Hope is built on the east side of the Mackenzie, two miles and a quarter above Hare Indian River, and two below the ramparts. It was originally about one hundred and twenty miles down the river from this point, but was subsequently moved up to Upper Manitou Island, whence it was swept by a flood in 1836. It was then built on its present site. The Hudson's Bay Company has quite a large establishment at this point, consisting of half a dozen houses and some stables. The Roman Catholic Church has a mission here, and their church is said to possess one of the best finished interiors in the country.

Two miles above the fort we enter what is known in the vicinity as the "Ramparts;" though in the more south-westerly part of the country it would be called the "Cañon." Here, for a distance of seven miles, the river runs between perpendicular and occasionally overhanging walls of rock. At the lower end they rise one hundred and fifty feet above the water, but their height decreases as we near the upper end, at which point they are not more than fifty or sixty feet. At the lower end the cañon is nearly a mile wide, but its walls gradually converge until, about three miles up, the width is not more than half a mile, and this continues to the upper end. Sir Alexander Mackenzie when passing through sounded at its upper end, and found three hundred feet of water, which accounts for the fact that, although the cañon is so narrow, the current is not perceptibly increased.

About a mile above the Ramparts there is a rapid when the water is low, but when I passed there was no sign of it. We paddled right over where the worst part is said to be, and noticed nothing but a current somewhat quickened, but not sufficiently so to prevent our ascent with ease. On the east side of the river the rapid is unsafe for small boats during low water, but about two thirds of the way across to the west shore the water is deep and safe. I was told that several travellers, while passing in boats, have tried without success to find bottom with long poles. The rapid is caused by a ledge of rock extending across the river, apparently the upper edge of the rock, through which the Ramparts have been worn. Over this ledge the river simply drops. The Hudson's Bay Company's steamer has

not yet encountered any difficulty in passing up and down.

When on his way down the river, Sir Alexander Mackenzie met some Indians some distance above this place. After confidence had been established by means of presents, he prepared to start onward; and, although his newly made friends told him there was great danger ahead in the form of a rapid or cataract which would swallow him and his party without fail, he continued, they following and warning him of his danger. He advanced cautiously into the Ramparts but could hear or see nothing to verify their statements. At last, when through, they admitted that the only bad water to be encountered was now passed, but that behind the island, just below, was a bad spirit or monster, which would devour the whole party. Failing there, the next island below would surely reveal him. From these statements the two islands have received the names of Upper and Lower Manitou, respectively.

In the fall of 1887 a whale made its way up the river to the Ramparts, remaining there the whole season, and before the river froze over it was often seen blowing. At first the Indians were afraid, but they soon became accustomed to the sight, and shot at the whale whenever it approached the shore. In the spring its dead body was beached by the ice on the west shore seven or eight miles below Fort Good Hope, and the Indians used part of it for dog food. I enquired its dimensions of several who had seen it. They described it as about twice as long as one of their canoes and thicker through than their own height. This would mean a length of from twenty-five to twenty-eight feet. I have often heard it stated that all the channels of the Mackenzie delta are shallow, but the presence of this whale assures us that one of them at least is over six feet deep.

A short distance above the Ramparts a river flows irto the Mackenzie on its west side. I saw it only across the river, but it appeared to be about two hundred yards wide at its mouth. All I could learn about it at the fort was that it came from far up in the mountains.

Above the Ramparts the Mackenzie suddenly expands to over a mile in width. The banks, as a rule, are much lower than they are below, while in some places swamps occur close to the stream, something never noticed below the Ramparts.

Twenty-one miles above Fort Good Hope, Beaver River joins on the west, but as I continued on the east side, I saw only its mouth, which appeared to be one hundred yards wide. An Indian with mesaid that it took its name from the number of beavers formerly found on it. This stream rises in the mountains, but does not seem to be of any importance.

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Forty-eight miles from Fort Good Hope, Sans Sault Rapid is reached. This, like the rapid at the head of the Ramparts, is all on one side of the river, which is here a mile and a quarter wide. As I went up the west side, and the rapid was on the other, extending but little more than a third of the way across, I cannot say that I saw anything of it. I heard the roar plainly enough, but saw nothing except a swift current. It is caused by a ledge of rocks extending partially across the river. Capt. Bell reports deep water in the channel at the end of the ledge, and the steamer has no serious trouble in ascending. In very low water it is said that this rock is scarcely covered.

A ridge of hills here extends beyond the river from the Rocky Mountains, occasional glimpses of which can be caught from the water. Just east of the rapids above mentioned a ridge extends eastward from the river for some miles. The highest point in the end nearer the river was triangulated, and the height determined as one hundred and fifty-five feet above the water. To the north and east of this are several peaks, but they are scattered and isolated from each other. On the west side of the river the hills are some distance away. The rock of which these hills are composed is limestone, as far as I observed. I saw some specimens

of clay iron stone, but not in place.

A mile above the rapids a river called Mountain River flows in from the west.

It is from one hundred to one hundred and fifty yards wide, and shallow.

A mile above this again the Mackenzie turns sharply to the east from its southerly direction, and skirts the base of the mountains for six miles. Its course then curves a little to the south, when what might be termed a cañon is entered, in which the river flows for nine or ten miles. The river here averages a mile in width, and is walled on both sides by perpendicular limestone cliffs, rising from one to two hundred feet above the water. On the south side this wall terminates in what is locally known as Wolverine Rock, rising perpendicularly from the water to a height of about three hundred feet. The formation is limestone, the strata of which stand almost on edge, and the water has worn through them in several places, so that one can sail underneath. Above this point the mountains again approach the river for two or three miles, when they suddenly drop almost to the level of the plain. The banks are there clay and gravel, with an average height of from one hundred to one hundred and fifty feet.

Six and one half miles above Sans Sault Rapids Carcajou River empties its waters into the Mackenzie from the west. It is a large river, being not less than four hundred yards wide at its mouth. An Indian with me stated that this stream was very large and very long, the Indians having ascended it for great distances through the mountains. He pointed out the direction of the valley for some distance above the mouth, and it appeared to run parallel to the Mackenzie for a considerable space; then, turning sharply to the west, to enter the mountains. This

river seems to be the largest tributary of the Mackenzie below the Liard.

On the evening of Saturday, 21st July, I met the Hudson's Bay Company's steamer "Wrigler" on her way down to Fort McPherson. She had already been down as far as Fort Good Hope, and had returned with the season's furs. Here I got the

first news from the outside world since May in the previous year.

Opposite where I met the steamer is a large island in the river, which the officers of the boat and Mr. Camsill, in charge of the district for the Hudson's Bay Company, named "Ogilvie's Island," requesting me to so mark it on my map, as henceforth it would be known by that name throughout the district.

Ten miles below Great Bear River a stream about one hundred yards wide comes in on the westerly side. I saw it only across the Mackenzie, and got no

information concerning it.

Four hundred and forty-four miles from Fort McPherson brought us to Fort Norman, which is situated on the east bank of the Mackenzie just above the entrance of Great Bear River. This river is from two to three hundred yards wide at the mouth, with a moderate current, but a short distance up becomes shallow and the current increases. The color of the water is a beautiful greenish-blue, although,

when I passed, it was somewhat turbid. It is said by those who have been up on

the lake that the water there is very clear.

Between Forts Good Hope and Norman the Mackenzie averages much over a mile in width, and islands are so numerous that there are few reaches of the river without them. Hence, the average breadth of actual waterway is probably not over a mile. I never measured the velocity of the current; but it is nowhere strong, and I estimate that it is never swifter than four miles per hour, except at a few points which will be noticed later on.

On the east side of the river, two miles below Fort Norman, a limestone ridge, known as "Bear Rock," rises one thousand five hundred feet above the water, and maintains this height for some distance northward from the Mackenzie.

After we had passed a point some miles below Sans Sault Rapid, we could occasionally see the main range of the Rocky Mountains. I tried to locate the most prominent peaks in sight by triangulation, but on account of continuous wet weather during the whole summer, I did not succeed as well as I wished, although I continued this work all the way up the river to within a few miles of Fort Simpson. The data thus collected, when placed on my map, will permit an approximate location of the main range for the future maps of the district. In most cases the angular altitudes of the peaks were noted, so that their heights and positions can both be given. At Fort Norman the mountains are not more than twenty miles distant, but just south of that point they turn away from the river, and are not visible for some distance up.

Above Fort Norman the eastern bank of the Mackenzie is generally high, and composed of clay. The current has undermined these banks in many places to such an extent that they are continually falling into the river. This is markedly the case from twenty to forty-five miles above the point named. The current here is very swift, running in many places as much as eight miles an hour

for short distances in passing points.

In 1844 Fort Norman stood twenty-three miles above its present site on the west bank, but when that fort was built I could not learn. During the occupation of this site, one evening the occupants of the fort observed that the water in the river was falling very rapidly, yet retired to sleep, not suspecting any danger. Early in the morning they were roused by finding the water in their houses floating them out of bed. They escaped by means of boats, but all their cattle and other property were carried away. It was afterwards discovered that the fall in the water had been caused by an immense land slide damming the waters of the south branch of the Liard River; and the flood, by its release. The fort was then removed to its present site.

Just above the point where this incident occurred the river expands into what might be called a lake, only that it is filled with islands, and all the water-ways together probably do not amount to much more than a mile in breadth. This expansion is six miles long and four wide. Above this for six miles the current is very swift, the last mile and a half of it running fully eight miles per hour. In this portion the current washes the base of a high clay bank on the west side of the river and is continually undermining it, so that it is unsafe to either walk along the bank

or sail close to it in a small boat.

Sixty-five miles, by the survey, above Fort Norman, a large river enters from the west. It is shallow at its mouth, as it is throughout its course, according to the reports of the Indians. The current, they say, is swift. They ascend it a long way in the winter to hunt, and descend in the spring on rafts. How far they go up I could not learn, their unit of distance being the unknown quantity of a day's travel, but they go much farther than on any other tributary of the lower river. This is marked on my manuscript map as "Daha-dined River." It was so called by Sir John Franklin, or, rather, the Indians in the vicinity gave him that as the name. I also obtained the name from some Indians who had travelled it, and they called it "Pecat-ah-zah." This translated means Gravel River, by which name it is known to all the white men in the vicinity, on account of its shallowness and numerous gravel bars.

[PART VIII]

Nine or ten miles above, on the same side of the river, another stream enters, apparently not more than a hundred yards wide at its mouth. I saw it from the opposite side of the river only, and heard nothing concerning it. A small stream enters the Mackenzie opposite this place, and up its valley, about two miles from the river, was seen a sharp peak rising one thousand five hundred feet above the water.

About thirty miles farther up on the west side a river discharges a large volume of clear, black water, which rushes bodily half way across the Mackenzie, and preserves its distinctive character for several miles before it mingles with the main stream. The name applied to this river by the people at Fort Wrigley was "La Rivière le Vieux Grand Lac." It is said to flow out of a lake of considerable extent, lying not far from the Mackenzie. Many peaks can be seen up its valley.

Fifteen miles above Gravel River the Mackenzie changes from over a mile in width, with numerous islands, to a stream often not more than half a mile wide, and without islands. This continues up to Fort Wrigley, except that four miles below the fort it is only three eighths of a mile wide for a distance of half a mile. The current here is swift, but not as rapid as at some points farther down stream.

Six hundred and twenty-four and a half miles from Fort McPherson brings us to Fort Wrigley. This post was formerly known as The Little Rapid, but has received the name it now bears in honor of the present Chief Commissioner of the Hudson's Bay Company. Just above the fort there is a swift rush of water over some limestone rock, which appears to extend across the river. On the west side two small islands confine a part of the stream in a funnel-like channel, which, being shallow, causes a slight rapid, and gives rise to the former name of the post. It is said that this channel is sometimes dry during low water in the winter months.

From La Rivière le Vieux Grand Lac to the fort a range of mountains runs parallel to the river on its east side. They are in many places so close to it that the foothills come down to the water, especially near Fort Wrigley, but just above this point they turn away eastward from the river. Above Little Rapid the river again widens to much over a mile, with numerous islands, and retains this width almost to Fort Simpson. The east bank is generally low and often swampy, but the west, although low for a short distance from the river, gradually rises to a height of seven or eight hundred feet. Fifty-eight miles above Fort Wrigley this hill terminates in a bold, high point, and the ridge turns off to the south-west, enclosing a deep, wide valley between it and the mountains, which here approach the river. This range continues south-eastward out of sight. The positions and heights of some of the peaks were determined by triangulation. One of them was found to rise two thousand eight hundred feet and another four thousand six hundred and seventy-five feet above the river.

Three miles and a half from Fort Wrigley, a stream known to the Indians as the "River Between Two Mountains" discharges into the Mackenzie from the east.

Although one hundred and fifty yards wide, it is shallow.

Thirty-nine miles above this, on the same side, Willow Lake River enters. It is a quarter of a mile wide, deep, with a slack current. It is said to flow out of a lake of considerable extent not far from the Mackenzie.

Sixteen miles above this again, on the west side, a river flows in from the south west. I have seen its name spelled Na-hone, but it is spelled by the Rev. Father Petitot, Na-hauner. This stream, as seen from the opposite side of the river, seems about two hundred yards wide; but it is shallow and rough at the mouth, as was ascertained by the noise of its waters being plainly heard across the Mackenzie, here a mile wide. I could get no information as to what it was like for any distance above its mouth; but it pierces the range of mountains to the west, which here come close to the river. The valley thus formed can be seen extending south-westerly through the mountains for many miles.

No streams of any size enter the Mackenzie between this point and the confluence with the Liard. The banks in this stretch are alternately low and swampy, and moderately high, consisting of gravel and sand.

PART VIII

By the survey it is seven hundred and fifty-eight and one half miles from Fort McPherson to Fort Simpson. The latter fort is situate on an island just below the junction of the Mackenzie and Liard Rivers. Above the confluence both streams are apparently of the same size, each being a little under a mile wide. I have no data to calculate the discharge of either; but, if the discharge is in proportion to the area of the drainage basin, the discharge of the Mackenzie would be more than three times that of the Liard. From numerous reports, both verbal and written, it would appear that the Liard may be navigable for light draught stern-wheel steamers up to Fort Liard, which is one hundred and eighty miles above Fort Simpson in an air line. There are places which, in low water, would perhaps be difficult to get over; but they are probably not more frequent than on many other rivers which have been successfully navigated, as soon as the necessity for it has become apparent. Mr. McConnell, of the Geological Survey, came down this river in the autumn of 1887, when the water was probably low, and will be competent to speak conclusively on this subject.

A short distance above the confluence the Mackenzie narrows to an average width of little over half a mile, with a generally swift current. This continues for seventy-five and a half miles above Fort Simpson, and causes this part of the river to be called the "Line," from the fact that large boats cannot be rowed against the current, but have to be hauled by a line attached to them, and pulled by men on shore. This is the common mode of navigation on all the northern rivers where there

are no steamers, as it is less laborious than rowing against a current.

On his way down the river, Sir Alexander Mackenzie sounded near the head of the Line, suspecting from the rate of the current that the water was shallow. On 1st July, 1789, he found fifty-four feet of water here; in a second trial some distance below his lead caught in the bottom, and the united efforts of eight men could not pull the canoe against the current far enough to liberate it. In the struggle the line parted and the lead was lost.

The banks of this part of the river are generally somewhat low, consisting of gravel and sand. A couple of small rivers flow in, but are of no importance. Four miles above the Line a stream called "Rivière la Pêche" joins from the south-west, and is from one hundred to a hundred and fifty yards wide. Some Indians I met

near its mouth reported it as shallow and rapid a short distance up.

At the head of the Line the river widens from a little over half a mile to a mile and a half, and the banks become lower, rising but a few feet above low water. The current is slow, with almost dead water in the bays. The season of 1888 was unusually wet, and the water in the river and lakes correspondingly high; so much so, that the oldest residents in the district remember nothing like it. The following facts may be cited to corroborate this statement. A short distance above Rivière la Pêche there are large meadows where formerly great quantities of hay were cut for the cattle at Fort Simpson. Having looked for, but failed to find these meadows, I inquired as to their whereabouts of some Indians whom I met paddling around shooting along the west shore. They told me that I was then sailing over them. I sounded and found ten feet of water, on 4th September, a season of the year when it might be expected to be almost at its lowest summer level. At Lake Athabasca, a man born in the country and now sixty years of age, built himself a house near the Quatre Fourche, some years ago, at a spot where his past experience justified him in expecting never to be troubled by high water in the lake. But 1888 upset all his calculations, for the water in the lake rose so high that it occupied the lower flat of his house, and he had to camp out part of the season.

With the water at this height the flat shores above the Line were all submerged, sometimes for several hundred yards into the woods, so that I found it impossible to carry on the survey in the ordinary manner. I spent two days experimenting to find if I could not continue the accurate instrumental survey by some other method than that heretofore used, but failed. There are no hills in the vicinity of the river, so that a triangulation was impossible, nor could I find any spots on the shore where cutting trees would enable me to continue the micrometer survey, taking longer

sights than usual, and using of course a longer base rod. I was compelled above this point to abandon the instrumental survey and carry on a mere track survey, taking compass courses, and obtaining the distances from point to point by time and estimated rate of travel. I intended to resume the micrometer survey as soon as the height of the water permitted, expecting to find suitable conditions a short distance up. I had been led to expect that I would soon come to higher banks, but I found no dry bank outside the woods until I reached Little Lake, and there only for a short distance. I found the general state of the shores the same all the way to Great Slave Lake, and along it to the mouth of Great Slave River. I was compelled to continue the compass survey to that river, and up it several miles, before the banks were high enough to permit a continuous micrometer survey. Even then much of the instrumental survey was made in mud so soft that frequently one could not stand without sticks under his feet to prevent his sinking.

Before starting the compass survey I determined the latitude of the last micrometer station, and the error of my chronometer on local time, as well as I could with my instruments, intending to check my work as I went along by frequent latitude and time observations. But the cloudy weather prohibited this, and I got on the lake but one partial observation for time and none for latitude. I took some star transits for time while at Fort Resolution, but was unable to determine the chronometer rate during the interval; so that the observations are not of much value as a check on the distances estimated. There is therefore a break of two hundred and eighty-two miles in my instrumental survey between Forts McPherson and Chipewyan. If the longitudes assigned to Forts Simpson and Resolution on the maps are correct, the error of my compass survey can be discovered by comparing the difference of the longitudes given on the maps with that deduced from the

survey.

The banks for the whole of this stretch are very low and swampy, the soil

mostly sandy, and covered thickly with willows along the shore.

Twenty-six miles above the head of the Line Yellow Knife River enters the Mackenzie from the south, but as the country was all flooded it was impossible to form an idea of its size without ascending it some distance, which I had not time to do. It would appear, however, from the statements of the native with me, that this is the largest tributary of the Mackenzie between the Liard and Fort Providence.

Sixty-two miles from the head of the Line brings us to Little Lake, which is about twelve miles long, and ten or twelve miles wide, being merely an expansion of the river. The southern shores are flat and sandy; but, notwithstanding this, the water when I passed was deep a short distance out. What it is in an ordinary stage of water, I did not learn. Sir Alexander Mackenzie reports making frequent soundings in the lake during the last days of June, 1789. In the lake he found eighteen to thirty-six feet of water, and in the river below the lake, to the head of the Llne, from twenty-four to thirty-six feet.

Above Little Lake, as far as Fort Providence, the river is wide and islands are numerous. Until I passed this point I followed the north shore, and could nowhere see across, so I can only guess at the width; but it cannot be less than two miles.

and is probably three, or more.

Fort Providence is on the north bank of the river, twenty-four miles above Little Lake. At the fort is the usual collection of buildings found at a Hudson's Bay Company's post. The Roman Catholic Church has a mission here. For a few miles above and below the country on the north bank is less swampy than that just passed, the banks being gravelly and rising fifteen to twenty-five feet above the water. Above the post is a slight rapid, which on the Lewes or most other rivers in our territory would not be noticed, being nothing more than a slight acceleration of the current over a gravel bar. When passing down, Sir Alexander Mackenzie sounded there, and found twenty-one feet of water. Opposite the fort is an island a mile or more long, and distant about half a mile from the north shore. Between it and the north shore the river is shallow, the main channel being on the south side of the island. South of this island is another, quite as far from the first as that is

from the north shore, but how far this island is from the south shore I have no idea,

nor could anyone at the post tell me definitely.

A little over four miles above the fort the channel is free from islands for some distance, the average width being about a mile and a half. Seventeen miles above Fort Providence the river expands into a small lake, named Beaver Lake, which is from two to four miles wide and eight long. I was informed that quite a large stream, called Beaver River, flows into this lake on its south side. Above this the channel, although continuing nearly as wide as Beaver Lake, is pretty well filled with islands.

Forty-six miles from Fort Providence we enter Great Slave Lake.

Exploratory Survey from Mackenzie River through Great Slave Lake and River to Fort Chipewyan, on Lake Athabasca.

The shore of Great Slave Lake, between Mackenzie and Great Slave Rivers, is low and flat, nowhere in that distance rising more than twenty or twenty-five feet above the water. Most of it is so low that it was submerged when I passed. The soil seen was all more or less sandy, until we reached the vicinity of the delta of Great

Slave River, at which point it is a rich, black, alluvial deposit.

About eighty-one miles from Fort Providence, Hay River enters the lake. Around the mouth of this stream the soil is sandy, and the vegetation not so abundant as in many other places, but some Indians have located here, and built themselves houses. They generally remain at this point all winter, subsisting on fish and a few potatoes which they raise. One old man seemed more provident than the majority of Indians. Some years ago he got a cow from some of the Hudson's Bay Company's people, and has since so managed that he is now the owner of seven or eight head, evincing a great anxiety to increase the number. His example will go far to encourage others to do likewise. There is no reason why the Indians in this district should not sustain themselves, partially at least, by cattle-raising, as there is fair pasturage along the lake, and meadows must be numerous in the flats away from the shore.

Hay River is from one hundred to one hundred and fifty yards wide, but just at the mouth is a large island, which makes it nearly half a mile across. Some eighty or one hundred miles from the mouth is a fall about eighty feet high. Mr. McConnell visited this point, and can give a fuller and more correct description of it than I can, as my information was derived from a few Indians whom I imperfectly understood. Hay River is only forty or fifty miles from the Peace at Vermilion, and the Indians at the mouth told me that they often ascend it and cross over to that point. They say that between the falls and the "Portage," as it is called, there are three bad rapids; but above them, for a long distance, there is comparatively good water.

One hundred and eight miles from Fort Providence we reach Buffalo River. This stream is about one hundred yards wide at its mouth, with an easy current, indicating a comparatively small volume of water. Around its mouth is a prairie, some forty or fifty acres in extent, on which the Indians have built a house, and

erected racks for fish drying.

Nine miles beyond Buffalo River the shore line is much indented by shallow bays of small area, bordered by low banks of limestone. In ordinary seasons it is probable that there is little, if any, water in these bays, as there were only a few feet in most of them when we sailed through. The limestone formation is exposed at frequent intervals along the shore for eighteen or twenty miles. At one point it was observed to be so strongly bituminous that a fire built on the rock caused it to emit strong fumes of petroleum.

About twelve miles before reaching Fort Resolution we pass Buffalo Creek, a small river which flows parallel to the Great Slave for more than fifty miles. Travellers to Fort Smith with canoes often follow this stream, as it is much shorter than

the crooked and winding Great Slave River.

53 Victoria.

One hundred and sixty-seven miles from Fort Providence, or one thousand and eighty-three from Fort McPherson, brings us to Fort Resolution, on the south shore of Great Slave Lake, near the mouth of Great Slave River. Here the Hudson's Bay Company has the usual trading-station buildings, and the Anglican Church Missionary Society has a small mission. The Roman Catholic Church also has a mission on an island in the lake about two miles from the fort.

At the fort I took magnetic observations as well as star transits to determine the error of my chronometer. I then resumed the micrometer survey, hoping to carry it on without interruption to Fort Chipewyan, connecting there with my survey of the Athabasca River. But, after working seven miles from the fort, I found the shore around the delta of Great Slave River so low and muddy that I was forced to desist, and I had to go up the stream some miles before I found ground dry enough to land on. In this piece I was unable to get even compass bearings, as the channels of the delta are very narrow and crooked. When I reached a point probably seven or eight miles from the lake I resumed the micrometer survey, this time to carry it through without a break to my survey station at Fort Chipewyan.

From the lake, for more than one hundred and sixty miles, the country along Great Slave River is low, flat, and somewhat swampy, the banks seldom rising more than a few feet above the water. The river throughout this stretch is very crooked; so that the first one hundred and fifty miles from the lake is nearly three times the air-line distance. Its average width is about half a mile, with a current of from three and a half to four miles per hour, and the river everywhere seemed deep. Afterwards the banks become higher and the soil lighter, and many scarped banks of

gravel from thirty to fifty feet high were seen,

A few miles below Fort Smith the banks rise, and the soil is gravelly, with some poplar timber on it. Seven miles below the fort occurs the only rock seen between here and the lake—a very small exposure of limestone. As we approach the fort the banks continue to rise, until at that point a height of one hundred and sixty feet is reached. At the fort the drift, composed of clay, gravel, and sand, lies on top of granite rock, which, for sixteen miles up, causes many rapids in the river. This is the head of the run of the steamer "Wrigley," the distance from Fort McPherson being twelve hundred and seventy three miles.

Fort Smith is at the lower end of a cart road, along the west side of the river, over which the outfits for the posts in the Mackenzie are hauled from the head to the foot of the rapids mentioned above. The Hudson's Bay Company have a few small buildings, and the Roman Catholic Church has a small mission. The sur-

rounding country is sandy and knolly with small and poor timber.

The survey could not be carried up the river on account of the numerous bad rapids, and was therefore made along the top of the bank from point to point. At every station the angles of elevation or depression of the back and fore sights were noted, and from these the differences in elevation were calculated, and the fall of the rapids determined. The distance from Fort Smith to the landing, about a mile above the head of the rapids, is fourteen and one half miles by the survey line; but as this cuts off two large bends in the river, it is probably two or three miles shorter than the course of the stream. This fourteen and a half miles follows the main windings of the valley, and is probably slightly longer than the cart road, which cuts across country from one landing to the other. From where my survey left the river to where it reached it again, the rise is two hundred and forty-seven feet, of which about two hundred and forty is in the rapids. This seems large, but when we consider the fact that this portion of the river for more than sixteen miles is nearly all rapids, and that the fall is only fifteen feet to the mile, the descent does not appear so great.

All the rock seen in the rapids was granite, with the exception of a small exposure, close to the water's edge, about half way up the rapids, which seemed to

be calcareous sandstone, containing many small masses of gypsum.

From the rapids up to Lake Athabasca, east of the river, the surface is much broken by granite knolls, between which lie small swampy flats. No streams of importance enter. On the west side, the country is not so much broken, nor are there so many rock exposures. There are a few small outcrops of limestone, much resembling those seen on Peace River at Peace Point, of which they are probably an extension. It appears to me that the river, from the junction with the Peace to the rapids, follows the line of demarcation between the older granitic and newer sedimentary rocks, as nearly all the rock seen on the west side is sedimentary, while on the east no sedimentary rock is noticed. As we approached Peace River some exposures of granitic rock were seen on the west side. But it is low, and covered with drift, nowhere standing more than a few feet above the water, while on the east side the same rock often rises upwards of eighty feet.

Seventy miles above the head of the portage we leave the main river, which above this point is known as the Peace, and follow a small channel locally known as the River de Rocher. Many people call the main river the Peace all the way down to the lake. Often, when speaking of Great Slave River, I was not understood, and had to explain what river I meant. From above the rapids to where we left the main river it is from a quarter to half a mile wide. There are one or two slight rapids, which, however, are not sufficient to interfere with its navigation by the steamer which the Hudson's Bay Company have on it. The rate of the current is not more than three

and a half miles per hour.

River de Rocher does not average more than one hundred and fifty yards wide, and the current is easy. There is one small rapid ten miles above Peace River; but it is not bad enough to prevent the descent of canoes or seriously hinder the ascent of the steamer. Thirty-eight miles on this channel, after leaving Peace River, brings us

to Lake Athabasca, and a little over three miles more to Fort Chipewyan.

On the evening of 19th October, I had completed the survey almost to Lake Athabasca, and was confident of reaching the fort with it during the next day, when the ice which had formed along the shores of the lake was blown out of the bays and carried down the river by the current in such quantities that evening that I became alarmed at the prospect of being closed in before morning, and therefore at once started for the lake. When I arrived there about nine o'clock there was a furious snow storm raging, so I had to remain on the shore until the next morning, when I proceeded to the fort. The weather moderated in a day or two, and I completed the survey on 24th October.

In connection with my survey of the Athabasca and Peace Rivers in 1884 I have already reported on the country around Fort Chipewyan and that end of the lake. As it has been visited by so many others, I need not here say more than that the principal features of the surface are granite knolls and swamps, with some ponds.

The timber is pine, spruce, tamarac, and poplar.

NAVIGABILITY OF THE VARIOUS STREAMS AND LAKES.

The Hudson's Bay Company's steamer "Grahame" traverses the waters of Peace and Athabasca Rivers, the former from the falls to the rapid at Fort Smith, and the latter up to Fort McMurray. The distance from Fort Chipewyan to the post at the falls on Peace River is two hundred and twenty-two miles. Mr. McDougall, in charge of the Athabasca district for the Hudson's Bay Company, gave me the following notes from the log of the steamer "Grahame" which is capable of steaming about ten miles per hour in still water. In 1888, during the first trip up, the water was very high, the current strong, and much drift wood floating in the river; the sailing time from Chipewyan to the falls on Peace River was sixty-five hours and five minutes; return, twenty-two hours. In 1887, with much lower water, the time going up was forty-nine hours and twenty minutes.

The distance from Fort Chipewyan to the head of Fort Smith portage is one hundred and two and one half miles. In 1887 the steamer's time from Fort Chipewyan to the landing at the head of the rapids was eight hours and thirty-five minutes; return, eighteen hours and forty minutes. In 1888 the time down was nine hours and thirty minutes, and the return fifteen hours and fifty-five minutes. Mr. McDougall

has throughly sounded this part of the river and assigns it an average depth of twenty-seven feet. At the landing at the head of the rapids the depth in midstream is one hundred and fourteen feet.

The distance across the lake and up Athabasca River from Fort Chipewyan to Fort McMurray is one hundred and ninety-four miles. In 1887 the steamer's time for this distance was thirty-two hours and twenty minutes going up, and nineteen hours and forty-four minutes returning. In 1888 the time was thirty-three hours and

twenty-five minutes up, and seventeen hours down.

I asked Captain Bell, of the steamer "Wrigley," for a statement of the time his vessel took between the various points along the Mackenzie. Just then he had not leisure to take the information from his log, and I had no opportunity afterwards of getting it from him, both of us being too busy to attend to the matter during the short time we were together at Fort Simpson. He told me that the steamer could make ten miles per hour in still water, and that her average speed up stream was six. But it must be borne in mind that in ascending they take advantage of all the easy water possible by keeping close to the shore.

Excepting a short distance at the head of Mackenzie River, where it is doubtful, it is certain that vessels drawing at least seven or eight feet of water can navigate from the delta of the Mackenzie to the rapids on Great Slave River, a distance of one thousand two hundred and seventy-three miles. If the Mackenzie delta also allows that draught, we have about one thousand three hundred and forty

miles of navigable water from the rapids to the Arctic Ocean.

Some notes as to the time during which this great stretch is open to navigation will serve both commercial and meteorological purposes. At all the Hudson's Bay Company's posts a journal is kept of all proceedings at the post, and of every event of note in the vicinity. From these journals can be ascertained the dates of the opening and closing of the river at the respective posts ever since they were built. From the officers at Forts Norman, Simpson, and McMurray, I obtained data which I here submit. The date on which the ice broke up is given in each case, but, as a rule, the river was not clear of running ice until nearly a week later.

FORT NORMAN-LATITUDE ABOUT 65°.

Year.	Ice Broke Up.	First Snow.	First Ice Formed.	River Closed.
1872 1873 1874 1875 1876 1877 1878 1879 1880 1881 1882 1883 1883 1884 1885 1886 1887	Not given. May 17th. do 25th. do 24th. do 19th. Not given. May 9th. do 22nd. Not given. May 14th. do 11th.* do 28th. No record. do May 24th. do 19th.	September 28th. do 28th. October 15th. Not given. October 10th. September 25th. do 28th. October 3rd. do 7th. do 2nd. do 9th. do 9th. Rest of record lost. No record. do September 23rd.	October 7th. do 21st. November 2nd. October 23rd. do 13th. do 18th. do 22nd. do 20th. do 22nd. do 14th. do 14th. do 14th. do 5th.	November 8th. do 12th. do 18th. do 9th. do 9th. Not given. November 7th. do 2nd. do 12th. do 12th. do 14th. do 10th. No record. November 13th. do 8th.

^{*}River was not clear of ice this year until May 28th.

In the record given below—for that part of the Mackenzie below the mouth of the Liard—it must be borne in mind that the Liard, being a mountain stream and rising in a somewhat warmer climate, opens before the Mackenzie River, which has also the disadvantage of having a large body of still water near at hand in Great Slave Lake.

A. 1890

FORT SIMPSON-LATITUDE 61° 52' N.

Year.	Ice Broke Up.	First Drift Ice.	River Closed.
1876	May 14th. do 8th. do 8th. do 3rd. do 7th. do 13th. do 7th. do 1st. do 12th. do 2nd. do 13th.	November 4th. do 1st. October 16th. November 12th. do 2nd. October 12th. November 1st. October 28th.* do 11th. do 28th. do 30th.	November 17th. do 28th. do 26th. do 20th. do 28th. do 30th. do 28th. do 18th. do 30th. do 20th. do 18th. do 20th. do 25th.

^{*} The first drift ice in the Mackenzie this year was seen November 1st.

The dates of the breaking up of the ice in the Mackenzie above the Liard for the same years are as follows:-

1876	Not given.	1882	May 20th.
	May 19th.	1883	
	do 17th.	1884	do 14th.
1879	do 19th.	1885	do 7th.
1880	do 19th.	1886	do 27th.
1881	do 19th		

The river is always open some time before the lake. In the latter the ice floats around for some weeks before it is sufficiently broken up to pass down the river. In 1888 it was well on in July before the lake was clear enough to enable the steamer to proceed to Fort Smith, but that was an unusually late season. As a rule, I believe, navigation on the lake opens in the last days of June. At Fort McPherson on Peel River, the ice does not generally leave until the 1st of June. On Lake Athabasca the ice goes a little earlier than on Great Slave Lake; but this does not affect the question of the navigability of the Mackenzie, which cannot be reached until Great Slave Lake is clear.

At Fort McMurray, situated at the foot of a long series of rapids on the Athabasca River, I obtained the following notes of the breaking up, drifting, and setting of the ice. This point is in about latitude 56° 40'.

Year.	Ice Broke Up.	First Drifting Ice.	Ice Set, River Closed.
1878 1879 1880 1881 1882 1883 1884 1885 1886 1887 1888	April 18th. No record. May 2nd. April 21st. do 24th. do 25th. do 27th. do 9th. do 16th. do 27th. May 4th.	October 27th. do 26th. November 14th. October 14th.* November 1st. October 30th. do 18th. do 23rd.* November 4th. October 22nd. November 3rd.	No record. November 1st. No record. November 12th. do 8th. do 10th. October 28th. November 13th. do 14th. October 24th. November 9th.

^{*} In these years the river became clear of ice for some time, after which drift ice again appeared, until finally the ice set and closed the river.

During the last two years the Hudson's Bay Company has had another steamer, the "Athabasca," plying on the Upper Athabasca River, between Little Slave River 80 [PART VIII]

and Grand Rapids. Both this steamer and the "Grahame," on the lower river, are flat bottomed stern-wheelers, drawing, when loaded, not more than two and a half to three feet of water. They can each carry about one hundred and forty tons.

I subjoin a table of distances between Fort McPherson, on Peel River, and Fort Chipewyan. The figures given are corrected for all known errors; but that part of the survey which was made by compass and estimated distances, I have no means of correcting at present.

TABLE OF DISTANCES FROM FORT McPherson.	
	Miles.
Mackenzie River proper	$32 \cdot 1$
Red River	$60 \cdot 1$
A large river entering on the east side, name unknown	$120 \cdot 5$
Loon River	$250 \cdot 8$
Hare Indian River	$272 \cdot 4$
Fort Good Hope	$274 \cdot 7$
Ramparts	$283 \cdot 6$
Beaver River	$295 \cdot 7$
Sans Sault Rapids	$322 \cdot 7$
Mountain River	$323 \cdot 3$
Carcajou River	$328 \cdot 0$
Great Bear River	$444 \cdot 0$
Fort Norman	$444 \cdot 2$
Gravel River	$509 \cdot 3$
Riv. le Vieux Grand Lac	$550 \cdot 5$
Fort Wrigley	$624 \cdot 5$
River between Two Mountains	$628 \cdot 0$
Willow Lake River	$667 \cdot 0$
Ne-hauner River	$683 \cdot 3$
Fort Simpson	$758 \cdot 5$
Head of Line	$829 \cdot 5$
Yellow Knife River	$855 \cdot 6$
Little Lake	$892 \cdot 0$
Fort Providence	$916 \cdot 0$
Great Slave Lake	$962 \cdot 0$
Hay River	997.0
	$1.024 \cdot 0$
Buffalo Creek	$1.071 \cdot 0$
Fort Resolution	
Fort Smith	$1.273 \cdot 5$
Head of Rapids	$1.287 \cdot 5$
Peace River	
Fort Chipewyan	
1	,

The upper Peace River is navigable for steamers drawing three or four feet of water; and, with a little improvement at two points, a draught of five to six feet could be utilized. This upper Peace River affords a navigable stretch of five hundred and fifty-seven miles, which, with two hundred and twenty-two miles on lower Peace River, and two hundred on Lake Athabasca, and, say, two hundred on the lower Athabasca, together with the distance given in the above table, gives us two thousand five hundred and sixty-nine miles of navigable water.

From our present knowledge, meagre as it is, I think we may assume that Great Slave Lake affords us at least five hundred miles more, considering its length and its many deep bays. To this we may add two hundred and forty miles on the Liard, and at least sixty on Peel River, thus making a grand total of three thousand three hundred and sixty-nine miles of water in the Mackenzie basin, all navigable, except for eighteen miles, at but two points, one a rapid two miles long on Peace River,

and the other, the Sixteen Mile Rapid on Great Slave River. A thorough knowledge of the two great lakes with all their tributary streams would probably increase this vast length of navigable water by several hundred miles. This does not take into account the Mackenzie delta and the sea near its mouth, of the navigability of which

nothing very definite is known at present.

During July, August, and part of September, I kept a record of the rise and fall of the water in the river, during the hours when I was not travelling. In the evening, when camp was made, a mark was set at the level of the water, and in the morning, the rise or fall was noted. Of course I could not observe the change during the day hours when I was moving. My object was to find approximately when the water fell to its lowest stage, as well as the rate of fall. But, owing to the very wet season, the rate thus determined does not indicate the variation of the water in ordinary seasons. On the lake I kept no record of the rise or fall as the observation would have been difficult, owing to the surf continually beating on the shore. Such a record would be of very little utility, as the depth changes with the direction of the wind, the water being often several feet higher on the shore upon which the wind is blowing than on the other. I found the high water not only a great hindrance to the progress of the work, but also the cause of much additional hardship.

TIMBER RESOURCES.

On the lower Mackenzie, as on the Lewes, the timber large enough for commercial or manufacturing purposes is all in the river valley. On the plains above, the trees are small and unfit for anything except for fuel or the few uses to which trees six or eight inches in diameter can be applied. There is some fine material for lumber on some of the islands in the river, but many are bare with the exception of a few willows. It may, in short, be said that, away from the immediate vicinity of the river, there is no timber of value in the sense in which the term is used in the east, until we get above Fort Wrigley, and then in some places the banks are low, flat, and swampy, with trees much larger than those on the higher lands, many of them being fit to make fairly good lumber. On the flats between Fort Simpson and Great Slave Lake as well as on those adjoining the lake there is also much forest that would yield a large amount of good sized spruce and poplar.

The level country surrounding the lower half of Great Slave River is all well timbered with fine large spruce, equalling in this the lower Athabasca and Peace Rivers, and I think, when the time comes, that here will be found this district's principal supply of lumber. On the high, light soil around Fort Smith, the trees are small and generally of no value except for fuel. Along the river, between the rapids and Lake Athabasca, there are many small areas of flat, swampy ground which

would supply some very fair timber.

It may be said generally of the lower Mackenzie that the timber along it is only sufficient to supply the needs of the immediate vicinity. On the upper river the surplus is not sufficient, and the market not convenient enough to justify manufac-

turing, until existing conditions are greatly altered.

The varieties of trees along the lower part of the river are few, spruce, with a few small tamarac, some small birch, and a few poplar, constituting the bulk of the forest. The spruce far outnumber all the rest. On some of the islands there is much shrubbery, willows and alders growing in profusion in the swampy places; but, in general, the undergrowth is stunted and thin, especially on the uplands.

AGRICULTURAL CAPABILITIES.

Everywhere the Mackenzie basin is quite as capable, so far as quality of soil is concerned, of supporting an agricultural population, as the greater part of the Provinces of Ontario and Quebec. The soil as seen from the river is generally good; and the probability is that it continues so at least as far back from the stream as the woods extend. This extent is said to vary from twenty to forty miles on the east side, where no stream flows in, but, where there are streams, the distance is much greater as the timber follows the valleys. Beyond the fringe of timber we come to 82

the so-called barren lands, on which nothing but mosses and lichens grow, and which, except as the pasturage of the musk ox and a few other animals, are practically useless, so far as known at present. On the west side of the river the woods extend to the timber line on the mountains.

Assuming the limits to be as above, the area of the fertile soil can readily be found. Speaking only of that portion of the Mackenzie basin extending from Athabasca Lake to the Arctic Ocean, we have a strip of land nine hundred and forty miles long and something over sixty wide. This gives in round numbers sixty thousand square miles of land, the agricultural capabilities of which we may reasonably discuss. I think the above area is less than that actually wooded, but on the west side much of the surface is probably at such an elevation, being near the mountains, as to be outside the limits of our discussion. Theoretically the points involved are the prevalent temperatures during the growing months, the period of vegetation, and the duration of sunshine.

I do not know of any regular record of temperature having been kept at Fort McPherson, the most northerly point at which any one is permanently settled in the district. The only information on this point which I have is my own record for the last ten days of June while I was camped in the valley near the fort. The lowest temperature during that period was 37° 3 F. on the 20th, and the mean minimum from the 20th to the 30th was 43° 3 F. The highest observed temperature during the same period was 74° F. at 1,30 P.M. on June 21st, and the mean temperature at that hour for the ten days was 62° F. The lowest of these temperatures would not injure vegetation. The mean minimum for the whole month would be below this, probably two or three degrees, but even that would not arrest vegetable growth. When, in connection with the temperature, we consider the number of hours of sunshine during June and July, it seems evident that Fort McPherson has all the essentials for the successful cultivation of most cereals and vegetables. At this northern point refraction extends the time during which the sun does not set, so that there are twenty-four hours sunshine each day from about June 1st to July 15th. On May 1st the sun is up for seventeen and one half hours, and during August the hours of sunlight vary from nineteen on the 1st to fifteen on the 31st. The total hours of sun are seven hundred and six in May; seven hundred and twenty in June; six hundred and eighty-four in July; and five hundred and twenty-seven in August; in all two thousand six hundred and thirty-seven hours of sun out of the total, day and night, of two thousand nine hundred and fifty-two in the four months. As twilight continues while the sun is less than eighteen degrees below the horizon there is actually no darkness during this period. When the temperature is suitable, vegetation under these conditions thrives to an almost incredible degree, as the following shows. When I arrived at Fort McPherson on June 20th the new buds on the trees were just perceptible, and on the evening of the 22nd the trees were almost fully in leaf.

The mean minimum temperature for the month of July was 45° ·4 F. The mean temperature for 1.30 p.m. was 64° ·7 F., but on two occasions the thermometer went to 78° in the shade, and ten times to 70°. These temperatures were noted along the river, at different points of course, although during the greater part of the month

my latitude did not change very much.

This combination of favorable temperature and long hours of sunlight promises well for vegetable growth, but there are interfering causes. Unfortunately, snow storms are apt to occur at any time in the year at Fort McPherson. On July 2nd, five inches of snow fell and the thermometer went down to 25° (7° below freezing point), yet, strange to say, the frost did not appear to hurt anything. A north-east wind, continuing for a day or more, lowers the temperature in a few hours from pleasant summer heat to what reminds one of the approach of winter.

As far as I could learn, no attempt at cultivating cereals or roots has been made at Fort McPherson. But at Fort Good Hope some of the people grow potatoes and other garden produce; and, as the difference of latitude is not much over a degree, the same things ought to grow nearly as well at Fort McPherson. The potatoes grown at Fort Good Hope are small, averaging about the size of large hens' eggs.

Those which I tasted were bad, as if they had been frozen; but they were of the previous season's growth, and it was then the middle of July. Even in Ontario potatoes of that age are not very palatable. This tuber appears to have always vitality enough to increase, as at Fort Good Hope they have had no change of seed for several years. This tends to show that the frosts are not very severe during the time the potatoes are growing and ripening. When I passed, the onions, lettuce, and other things planted in the gardens were pretty well advanced, the onion stalks being about as large as pencils. No cereals had been sown, but I think barley would succeed fairly well. I am not aware of any continuous record of temperature at Fort Good Hope; so I cannot say whether the climate at that place is suitable for the growth of plants during June, July, and August. While I was there the days were pleasant and warm and the nights not unpleasantly cool. Nor, if we omit the 2nd of July, when snow fell, did I note anywhere any temperature below freezing during July and August.

It may be said that my observations extended over too great a range of latitude to be of any value in indicating the temperature at any period or any place, as, while they were being taken, we were constantly moving south. This is true. But it must be remembered that in moving south we were leaving the area of constant sunlight and getting to where night has a cooling effect, so that the objection has

not the same weight it would otherwise have.

The statement given below of the duration of sunlight in the months of May, June, July, and August, serves to show that a difference in latitude has not the same effect in changing the summer temperatures of places in high latitudes as it has in more southerly localities. Unfortunately, the records at posts in the district are too few and meagre to either confirm or disprove this theory, and to use the records of such places as Fort Franklin, on Great Bear Lake, and Fort Rae, on Great Slave Lake, is hardly fair. These points are over three hundred miles apart in an air line, and the temperature at either or both may be influenced by the local conformation of the ground, or other unknown causes. However, taking the records at these places, we have the following comparison:—

Mean Temperature during	Fort Franklin, lat. 65° 12'	Fort Rae, lat. 62° 40'
May	35° ·2 Fah.	27° ·7 Fah.
June		51° ·4 61° ·2
July August		56° ·5

The Fort Franklin data are given in Professor Loomis' Meteorology, published in 1875. He gives as his authority Dove's tables in the report of the British Association for 1847. Who the observer was is not stated, but it was probably Franklin. The Fort Rae statistics were furnished by Mr. Carpmael to the Senate Committee appointed to inquire into the resources of the Mackenzie basin, and cover the same months as those given for Fort Franklin. These statistics, as far as they go, confirm the theory, for the extremes at Fort Franklin differ 16° ·8, while at Fort Rae the difference is 33° ·5, and the monthly differences at the former place are much less than at the latter.

I have computed the following table which shows comprehensively the different durations of sunlight for the latitudes of Ottawa and Forts Chipewyan, Simpson, Good Hope, and McPherson:—

	Ottawa.	Chipewyan.	Simpson.	Good Hope.	McPherson.
Latitude	H. M. 14 08 15 16 15 30 15 24 14 32 13 08	58° 43′ H. M. 15 34 17 36 18 44 18 36 16 16 13 52	61° 52′ H. M. 16 05 18 39 19 14 19 02 16 56 14 08	66° 16′ H. M. 17 06 21 04 22 48 22 04 18 16 14 36	67° 26′ H. M. 17 30 24 00 24 00 24 00 19 24 14 44
Hours sunlight in May	HOURS. 456 462 464 423 1,805	HOURS. 514 549 530 467	HOURS. 538 570 558 481 2,147	HOURS. 592 662 625 519 2,398	HOURS. 706 720 684 527 2,637

The number of hours of sunlight in each month has been obtained from the mean of the numbers at the beginning and ending of the month. This does not give a strictly correct result, as the sun's declination, on which the length of the day depends, does not change uniformly, the daily change in June, when the sun has attained its greatest declination, being small as compared with that in September when the sun is near the equator. Were the light of each day in the period separately computed, the totals would show even more difference in favor of the north. In computing the above table, refraction has not been taken into account, except in the case of Fort McPherson. Allowance for refraction would increase the duration of sunlight at all the other places; but much more in the north than in the south. As the table now stands it assigns to Fort McPherson eight hundred and thirty-two hours, or thirty-four and two thirds days, more sunlight than Ottawa during a total period of two thousand five hundred and fifty-two hours. A better mode of comparison is to reduce the number of hours of sunlight at each place to days. It stands thus: Ottawa, seventy-five days, five hours; Fort Chipewyan, eighty-five days, twenty hours; Fort Simpson, eighty-nine days, eleven hours; Fort Good Hope, ninety-nine days, twenty-two hours; Fort McPherson, one hundred and nine days, twenty-one hours, and this out of a total of one hundred and twenty-three days.

At Fort Norman the Hudson's Bay Company had a garden planted with turnips, potatoes, and other garden produce. I was at that point during the last days of July, at which time potato vines were from six to ten inches long, and did not promise a good yield. The Roman Catholic Mission had two patches, together about an acre in extent, planted with potatoes. The soil here was much better than in the first patch, being a warm clay loam, while in the other it was nearly all decaying vegetable matter, commonly called "muck." The mission potatoes were much stronger in the vines than the Hudson's Bay Company's, and, at that time, nearly covered the ground. The Anglican missionary had planted a small piece of ground near the river on a sheltered bench below the top of the bank and facing the south. Here the growth was much stronger than at either of the other places. Some barley had been sown in it and was well grown, the stalks averaging from two to two and a half feet high, and the heads being long and just beginning to fill. The growth of grass on this flat is luxuriant, and nettles grow as strong and large as any I have seen elsewhere. Near the

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edge of the woods wild vetches grow as long and vigorous as they do near Edmonton. Everyone complained of the cold, wet weather which prevailed during the summer and much retarded vegetation. The Roman Catholic missionary, in charge of the mission here, told me that in twenty years' residence at the place he did not recollect such a cool, damp, cloudy summer.

At Fort Wrigley some slight attempts had been made at cultivation, but I do not consider them a fair test of the capabilities of the place. When I was there, on 15th August, the people were gathering blueberries, then fully ripe and as large and well flavoured as they are in Ontario. Ripe strawberries were found on 9th August ninety miles below this, and a few raspberries soon afterwards. Above Fort Wrigley wild gooseberries and both red and black currants were found in abundance, some of the small islands being literally covered with the bushes. The gooseberries were large and well flavored, and the currants would compare favourably with the same fruit as cultivated in the vicinity of Ottawa, the black currants being especially large and mellow. This was in the middle of August, in latitude 63°.

At Fort Simpson the Hudson's Bay Company has a large plot of ground planted with potatoes, turnips, onions, and other garden produce, such as is generally grown without artificial means in Ontario. On August 24th when I visited this place the growing vegetables looked almost as good as the same kinds seen on the Ottawa market at the same date. Lettuce particularly was very large and fine. There was also a large area of barley which looked well and promised an abundant return if allowed to ripen. The grain was then full and plump and just beginning to harden; but fears were entertained that a frost might come and spoil it. The people there claimed that the prevailing cool, cloudy weather had retarded its growth, as otherwise it would then be out of danger from frost. This cereal has been grown with success at Fort Simpson for many years. I understood that wheat had been tried, but with indifferent success. The garden altogether presented an appearance hardly to be expected at a point eleven hundred and fifty miles farther north than Ottawa. It is situated on an island in the river, and the presence of the large body of water may moderate the climate and account for the fine appearance of the garden. Whether the same favourable result can be attained a mile or more away from the river can only be decided by trial. I am strongly of the opinion that it cannot.

On the high river bank below Fort Providence wild gooseberries and currants were very plentiful, though on the 8th of September they were somewhat over ripe.

At Fort Providence the usual garden produce is grown every year and generally turns out well. Barley is also grown with success; but in 1888 it was, as everywhere else in the valley, much retarded by cool weather. Up to my departure from the post, the lowest temperature, exclusive of 2nd July, was 31° 8 on August 29th. The mean minimum for the month of August was 43°. When I was at Fort Providence the barley was beginning to change color, and, unless a very severe frost came soon after, would ripen. Wheat has been grown here for many years by the Hudson's Bay Company, generally being fairly ripe before it is touched by frost, and sometimes escaping altogether. The wheat is ground in a small hand mill, and the flour used in the ordinary way by the people of the fort. While there I ground a few pounds of the crop of 1887 and had the flour made into a cake, which, though not quite so good as that made from XXXXX flour, was palatable, and would probably sustain life as effectually as any other, those using it appearing as well and strong as could be desired. I brought home a sample of this wheat for your inspection.

At Fort Resolution the Hudson's Bay Company were growing potatoes, turnips, and barley. The first two were of good quality and size; but there would be no yield of the last. The Anglican missionary also had a garden in which were potatoes, cabbage, cauliflowers, turnips, onions, and peas, the latter still green on 21st September. The potatoes and cauliflowers were both good in size and flavor. I was informed that small potatoes were grown in a garden at Fort Rae, situated on a long arm of Great Slave Lake; but, according to report, there is not much land around the lake available for farming, even were the climate suitable, as it is nearly all

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rock. At Fort Smith nothing of importance from an agricultural point of view had

been done and the autumn frosts were very severe.

Samples of seeds from the Central Experimental Farm were received at all the posts, but too late for planting in 1888. If proper attention is given to them, as I believe it will be at most points, the results will be very interesting and instructive

as a practical test of the capabilities of the country.

In conclusion, I may say that I do not wish to be understood as representing this country as suitable for agricultural operations, as I do not think it is. I have merely presented the results of the attempts which have been made. These results are doubtless much more favorable than might be expected; but how far they would hold good elsewhere than in the immediate vicinity of the river is not known. It is probable that the presence of such a large volume of water, with a temperature of

about 55°, has a beneficial influence on vegetation.

Before that part of our territory will be required for settlement, there will be ample time to determine by experiment exactly what it is worth for agriculture. In looking over the world for countries lying in the same latitude to compare with it, we find Norway extending from latitude 58° to 70° 30′, with an area of one hundred and twenty-three thousand two hundred and six square miles, and a population of one million eight hundred and six thousand, nine hundred. Of her territory only about one thirtieth is under cultivation, one fourth being covered with forest, and the rest barren mountain land. But as Norway is exposed throughout its whole length to the Atlantic Ocean, the comparison is hardly apposite. Better suited for comparison is that division of Russia known as Finland, lying between 60° and 70° north latitude, with an area of one hundred and forty-four thousand two hundred and fifty-four square miles, and a population of two million one hundred and forty-two thousand and ninety-three. This shows us that we must not regard the district as altogether useless nor despair of its ultimate occupation to at least the same extent as the countries named. When we take into consideration also the adaptability to settlement of the Athabasca and Peace River valleys, which are parts of the same great drainage basin, we may look forward with confidence to its ultimate occupation by several millions of inhabitants. As I reported on the Athabasca and Peace country in 1884, I will content myself here with quoting from that report an extract relating to the agricultural capabilities of the district drained by these two rivers.

"All the way down the Athabasca to the lake, the country is (with the exception of a few meadows) thickly wooded, and a great deal of it is swamp and marsh,

interspersed with lakes and ponds.

"A great deal of the soil along the bank is of very fair quality. At Fort McMurray are a couple of small prairies or meadows; the soil is good, and the root

crops and garden produce raised there are generally very good.

"To convert this into an agricultural country, the forest would first have to be cleared, and considerable drainage would be required for a large portion of it, which would render the question of its settlement a problem for the future to determine.

"From Lac La Biche to McMurray is a pack trail, which is occasionally used. It follows the course of Athabasca River, at a distance of from two to twenty miles. Those who have passed over it inform me the country is much the same as that seen along the river—woods and swamps, with a large percentage of marsh or

bog; also quite a number of lakes.
"The country on the west side of the river, as far as I could learn from Indians and the few white men with whom I came in contact who had been over it, was much the same, at least for fifteen or twenty miles back. I could learn nothing definite about anything much farther back than that. The only approach to prairie along the Athabasca is where House River flows into it (a few miles above Grand Rapids), at which point an extensive fire has almost cleared away the forest for a mile or two. It is now covered with a good growth of grass and shrubbery. The soil appears to be very fair—a loamy clay—and were there any inducements to settlers, a few fine farms might be established. A meadow near McMurray is about sixty

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acres in extent, from which the Hudson's Bay Company procure their hay. The soil

is said to be good.

"At a point called 'Point Brule,' about ninety-six miles below McMurray, fire has partially cleared off the forest for some little distance from the river. A couple of families of Chipewyan Indians have taken possession of a small portion of it, and done a little cultivation in the way of planting potatoes. Their efforts were necessarily very crude, and the appearance of the crop bore witness of it.

"It is a pity such attempts do not succeed, as one failure does more to dishearten

the natives with agriculture than ten successes would do to encourage them.

"The soil at this point was gravelly clay, and, with ordinary cultivation, should yield pretty fair crops.

"On the flats near the lake the soil is wholly alluvial; it is rich, but too low

and damp for agricultural purposes.

"On the north side of the lake, around Chipewyan, there is little or no soil of any description, the country being all bare Laurentian rock.

"The Hudson's Bay Company have a garden at the fort of upwards of an acre in extent, and the Episcopal Mission one of smaller area, but the soil is very sandy. The Roman Catholic Mission have a garden also, most of which they obtained by draining a bog.

"In the season of 1883 (which was a favorable one in that district, being free from summer frosts) the Hudson's Bay Company raised about four hundred bushels of potatoes, the Episcopal Mission thirty bushels on a small patch, and the Roman Catholic Mission about five hundred bushels.

"Many of the retired Hudson's Bay Company's servants also have small patches which they cultivate; potatoes and fish being the principal articles of food used during the winter.

"I am sorry to say that, owing to the prevalence of summer frosts, nothing like the above returns were expected by any of the parties above named last summer.

"I believe one or two of the patches owned by Hudson's Bay Company's retired servants escaped the frost, but the general effects were ruinous.

"Ascending Peace River until Peace Point is reached, the country is mostly low and flat, with many lakes and ponds, like that on the Athabasca. Occasionally a sandy or gravelly ridge is seen, which must have formed a bar in the shallow waters of the great lake which once covered this district. The soil on the flats is good, but, like that on the flats of the Athabasca, it is too low and damp for agricultural purposes. On the north side of the river at Peace Point the country is prairie, with poplar bluffs; and the same extends, I was informed by Indians, through to Salt River, in the Great Slave Lake district. The soil along Peace River at this point is a black, gravelly clay, with a coarse gravel subsoil; and, as nearly as could be learned from Indians, it is pretty much the same all the way through to Salt River, where there is quite an extensive prairie. This prairie was described to me by those who have seen it, as one of the prettiest and best pieces of country in all the northern district. The country along the north side of the river, from Peace Point up to Vermilion, is generally heavily timbered, with occasional parts of open scrubby woods and small patches of prairie. On the south side the open woods and prairie are less frequent, until we reach a piece of scrubby prairie, which begins seven or eight miles below Red River, and reaches to it, and runs back about two and a half or three miles where it merges into the forest. The soil in it is good black, loamy clay, about one foot deep, with a subsoil of fine sandy clay. The Hudson's Bay Company here cultivate two or three acres, and when the summer frosts are not too severe the returns are splendid. This year the crop consisted of potatoes, turnips, and garden stuff, which, notwithstanding the successive and severe frosts of the season, looked very well when I was there (the 22nd August), but Mr. McKenzie feared the yield of potatoes would be small compared with that of last year, which was enormous. Usually a little barley and wheat has been grown there; this year none was sown.

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"At Vermilion, along the river on the south side, there are about twelve to four teen miles of prairie, with small poplar and scrub, which runs back from the river about three miles. The soil is good black loamy clay, loose and deep, with a gravelly clay subsoil. The Episcopal Mission school at Vermilion, for the teaching of the young in the district, has a farm attached with about twenty acres under cultivation, under the management of Mr. E. J. Lawrence. Last year his crops of potatoes, barley and wheat were splendid; this year the frosts almost destroyed everything.

"Mr. Garrioch, in charge of the mission, also cultivates quite a large piece, from twenty-five to thirty acres in connection with the mission. The Hudson's Bay Company has an extensive field growing both roots and grain, (wheat and barley); and the Roman Catholic Mission also cultivates some ground. Besides the above farms several others were located last summer by private parties, all of whom seem hopeful for the future. Many of them had been in the country for several years. Here, as at other places mentioned, no one expected to harvest much more than the seed sown, owing to the very unusual season, which was in the early part dry and warm, so that grain sownin April did not germinate until June for want of moisture. In June the weather became very wet, and continued so all the summer, with frosts at frequent intervals. That this summer was unusually severe all were agreed, but all admitted that there was an uncertainty every year. Mr. Moberly, in charge of the Hudson's Bay Company's post here, who had lived in the country for several years, told me his experience for seven years stood as follows: Two years an unqualified success, two years failure such as the present, and three years a fair return.

"Opposite Vermilion, on the north side of the river, there is an extensive tract of prairie and poplar bluff country, which extends from the Peace to the watershed between Peace and Mackenzie Rivers south-westward along Peace River for about forty miles or more, and north-eastward along the river a few miles, until it merges into the country already described. This is said to be a first class country in every way, well wooded and watered, with a rich, deep, black, loamy soil; and if the life of flowers and berries be any indication of freedom from frost this district is favored in this respect, as the berries ripen here when they are killed in the sur-

rounding parts.

"The country south-westward from the end of this tract to Battle River is described as woods and swamps, alternating with patches of prairie and open woods, and from Battle River to the prairie near Dunvegan is generally drier with more

prairie.

"It appears, therefore, that from Dunvegan, on the north side of Peace River, down the river to Peace Point, and thence to Salt River, on the Great Slave, there is a tract of country about six hundred miles in length and forty miles wide of which a large percentage is fit for immediate settlement, and a great deal more could be

very easily cleared.

"Of the country south-east of the Peace, between it and the Athabasca, very little is known. It was described by all whom I met, who had seen any portion of it, as a rolling surface, the ridges heavily wooded with fair timber, and many of the basins containing swamps and lakes of considerable size. Out of one of the latter, Lake Wapisca, Loon River flows into the Peace, and another stream called by the same name into the Athabasca at Grand Rapids. Some of the ridges rise into high hills, and in some of these rock exposures are said to be visible. Whenever the needs of the country make it worth the trouble, timber can be easily floated into Athabasca and Peace Rivers by the numerous streams which enter them from this tract.

"A little north-east of Vermilion, and between twenty and thirty miles from the river, is the west end of Cariboo Mountains. They extend from this point eastward about sixty or seventy miles, and then appear to turn to the north. From a station a little below Vermilion I took the angle of elevation of the highest point I could see in them, and found it to be 0° 55′, so that they must rise between one thousand five hundred and two thousand feet above the river. I saw no white man who had been in these mountains, except on a flying visit in the winter for trading,

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and then, of course, the most rugged parts would be avoided, and consequently very little observed of the rocks composing them. The Indians speak of beautiful many-colored stones seen in them. Judging from what they say, I think the rocks are Laurentian, and the 'beautiful stones' may be crystals. I was told they also speak of places on the north side of the mountains which smoke in the winter; but I have noticed that the Indians call all sorts of vapours 'smoke,' and what they call smoke

may only be the vapour rising from springs.

"At Dunvegan, notwithstanding the severity of the frosts, the crops are very good both in quality and quantity. When I was there the Roman Catholic missionaries had threshed their grain, samples of which I brought back. The yield was as follows:—fifty pounds of wheat were sown on the 16th April and reaped on the 20th August, and twenty-seven bushels threshed of good clean grain; fifteen pounds of Egyptian barley sown on the 18th April and reaped 20th August, and fifteen bushels threshed, weighing fully sixty pounds to the bushel. The Hudson's Bay Company and Episcopal Mission had not threshed, and could not give their returns; but they were well satisfied with their crops of all kinds. The Rev. Mr. Brick, of the Episcopal Mission, was already using bread when I was there made from wheat of the present year's growth.

"The only settler in all the Peace River country who lives beyond the

"The only settler in all the Peace River country who lives beyond the immediate valley of the river (Mr. Milton, about eleven miles from Dunvegan), lost all his crop by the frosts; fortunately for him, his operations were not very extensive. A company was formed last season, by people interested in that part of the country, to erect a small grist mill in order to encourage settlement there; but the unusual severity of the season caused them to recall the order they had already sent out for the mill. It is much to be hoped that next season will prove more favorable; should it not, it will divert a good deal of attention that is now directed to that part of the country, and of which (aside from the climatic condi-

tions) it is in every way worthy."

FISH.

Fish are numerous in the Mackenzie, the principal species being that known as the "Inconnu." Those caught in the lower river are very good eating, much resembling salmon in taste, being also firm and juicy. The flesh is a light pink in color, but as they ascend the river and become poor, this tint turns white and the flesh gets soft and unpalatable. They average ten or twelve pounds in weight, but have often been caught weighing thirty or forty. They ascend as far as the rapids on Great Slave River, where they are taken in the fall in great numbers for dog-feed, being then so thin that they are considered unfit for human food, if anything else is obtainable. This fish is not fed to working dogs, unless scarcity of other fish compels it. There is a small fish known locally as the "herring," somewhat resembling the Inconnu in appearance, and which does not grow larger than a pound or two in weight. The staple fish of the district, and, for that matter, of the whole North West, is the whitefish. They abound in many parts of the river, but especially in all the lakes discharging into it, and form the principal article of diet during the greater part of the time, as very little food is brought into the country. This fish is caught in large numbers everywhere. At Fort Chipewyan, the Hudson's Bay Company, in the fall of 1888, required thirty-six thousand for the use of the post; the Roman Catholic Mission, twelve thousand; and the rest of the population, at least thirty thousand more. Most of these were caught within three weeks, while I was there. Sometimes they are numerous in one place, and sometimes in another, so that long journeys are often necessary from the place where they are caught to where they are to be used. This necessitates a large number of dogs to haul them home, which is a very poor method, though the only one in use. To overcome this inconvenience Mr. McDougall, at Chipewyan, has built an ice-boat, but has so far met with indifferent success, as the ice has been unusually rough during both of the last two falls.

FURS.

As the trade in furs is pretty well known and understood throughout the country, it is not necessary to say very much about it here. I have no statistics to offer in connection with it other than can be derived from published reports on that section of the country. The pelts obtained in the district are essentially the same as those obtained in the rest of the territory, with the addition of the musk ox, the Arctic or white fox, and the blue fox, the first being found only on the barren grounds east of the river and north of Great Slave Lake, and the two last down near the Ocean.

The labor attendant on bringing the skin of the musk ox from the barren grounds where it is killed, is great compared with that connected with securing other pelts; and this will to a certain extent protect them from the undue slaughter which has resulted in the extermination of the prairie buffalo. An Indian gets a little more for a musk ox skin than for a marten pelt, yet he can bring a hundred marten pelts to market with less labor than one ox skin. If he travels far into the barren lands after them, he has so much farther to bring the skin back. So there is a limit he cannot conveniently pass, and beyond this the ox will be unmolested, except occasionally by bands of Indians passing from one lake or district to another.

Moose are now scarce all along the river, as are deer of all kinds.

The wood buffalo which formerly roamed around all the upper waters, is now nearly a thing of the past. A few still remain scattered over a wide district. Could some means be devised to protect them for several years, they would probably soon multiply and become a source of food supply and revenue to the natives. McDougall, who has for some years past been gathering information concerning the number of these animals and their locality, has kindly given me the following notes. In the winter of 1887-88 on the head waters of Hay River which flows into Great Slave Lake and west of Battle River, a tributary of the Peace, the Indians saw three bands containing seventeen, ten, and four, respectively; they killed five, but Mr. McDougall did not ascertain whether these were in addition to the above numbers. The same winter three bands were seen between Salt River and Peace Point on Peace River, numbering fifty, twenty-five, and about twentyfive, respectively. None of these are reported to have been killed. During the winter of 1886-87, between the north end of Birch and the south end of Thickwood Mountains, distant about one day or thirty miles from Fort McMurray on Athabasca River, one band of about thirteen was seen. Since then five of this band have been killed. Below Red River, a tributary of the Athabasca, and between Birch Mountains and Athabasca River, and ranging down to Poplar Point on the Athabasca, another band said to contain about twenty was seen. Altogether we have only about one hundred and eighty head of wood buffalo in this vast extent of territory. The paucity of their numbers is, to some extent, a protection to them. If they escape epidemics and such a winter as almost exterminated them on the Upper Peace, some years ago, they may possibly increase. Whenever the Indians come across a band they try to exterminate them whether they need them for food or not. They try to drive them into a bog, if one be convenient, and, if they succeed in this, their object is soon accomplished; for the poor brutes mire in the bog and are quickly killed. The Indian feels, after accomplishing a feat of this kind, as if he had won a battle, and never thinks of the reduction in his food supply.

Owing to excessive competition in the outer or southern parts of the district, the supply of fur is gradually decreasing, both in quantity and quality, for the Indians now kill anything they see at any time in the year, knowing that if one will not buy from them another will. I have known them to break into a beaver house in the month of June, after barring all means of exit, and kill both old and young, though the young were hardly able to crawl about. When there was only one trading company in the Territory such things were not only discouraged but punished, by declining to buy out of season, and refusing to give credit to the Indian guilty of such unnecessary destruction. In this way fur-bearing animals were pro-

tected from extermination. Now, no such check can be applied, and consequently the supply is slowly diminishing, and the only source of food which the Indian possesses, outside of wild fowl and the fish in the lakes and streams, will soon be gone. In fact, it is already gone, to such an extent that he is often starved for the want of means and appliances to hunt or fish with. From this cause many have starved to death in the last two years in the Athabasca district. If the present rate of decrease is maintained in the supply of fur, in a few years it will be but little assistance to the Indian as a means of living. Then he will; as far as possible, remove to the vicinity of the settlements, where the public will have to sustain him, and the only business now pursued in the northern part of the Territory will almost cease. The evil will, to a certain extent, work its own cure; for the stoppage of the trade will allow the fur-bearing animals to increase until it pays white trappers to engage in hunting: once the Indian becomes assured of a living elsewhere he will resort to the hunting field no more.

I would respectfully suggest that some method be devised for restricting the indiscriminate slaughter of fur-bearing animals. For the greater part of this slaughter there is no reasonable excuse, as most of the fur-bearing animals are useless as food, or are never eaten (which is the same thing), and protecting them during the breeding season would entail no hardship on any one. To appoint and pay protective officers would probably cost more than the whole business is worth to the country, and the result would likely be a failure. An alternative would be to lease the country to companies in districts large enough, and for terms long enough to make it an object to them to protect the trade and preserve the fur from extermination. The lessees should also enter into bonds not to accept a skin out of season, or one too young, under a heavy penalty for breach of this condition. It would probably be difficult to prove any such breach, but the fear of the penalty and the profit from protecting the trade would, I believe, accomplish all that is desired.

It is true that such an arrangement as a monopoly seems contrary to the spirit of the times, but the alternative is serious. Objection to such an arrangement on the ground of monopoly has less force when we consider that all the competition is now between one large company and a host of individuals, who, as far as known, make little or nothing out of the trade, and would be much better off on farms or in some

other occupation in the settled districts.

I disclaim any desire to interfere with the private business of others, but I respectfully submit these facts and views for consideration, feeling that it is my duty, though an unpleasant one, to offer these suggestions.

MINERALS.

Coal.

On the Mackenzie, the first coal I heard of was a seam of which Mr. McDougall at Chipewyan told me, and which is situated in the base of the mountain just above Rapid Sans Sault, on the east side of the river. He could not give me any details concerning its extent, more than that he believed it to be about four or five feet thick, and that it was in the limestone rock of the mountain. It this is true, it indicates that this coal is older than the lignite coal of the country, and probably much harder and better. I did not know of its existence until I got to Fort Chipewyan, or I would have tried to have a specimen sent out after me.

About three and a half miles above Fort Norman, on the east bank of the river, two extensive exposures of lignite crop out. The upper one is overlaid by about fifty feet of clay and a few feet of friable sandstone, and is about fifteen feet thick. The other seam is probably forty feet below this; when I was there it was nearly all under water. It is said to be as thick as, if not thicker than, the upper one.

The upper seam has been on fire for over a hundred years, as it was burning when Sir Alexander Mackenzie passed in 1789. The place is locally known as "Le Boucan." The fire extends at present about two miles along the river, not continuously, but at intervals. When I passed it was burning in three or four places.

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After it has burned a certain distance into the seam the overlying mass of clay falls down and, to some extent, suppresses the fire. This clay is in time baked into a red colored rock, in which are found innumerable impressions of leaves of plants. Some specimens of these I brought home, and handed to Dr. Dawson. Traces of this red rock were noticed on the bank fourteen miles below Fort Norman; but no trace of

lignite was seen near it, having probably been all burned.

The burning seam appears to be of poor quality, containing much shale and sand, which is converted by the heat into scorie. It did not appear to me that it would be difficult to cut off all the burning places, and thus stop the further advance of the fire, which is destroying what yet may be of use. In order to find whether the combustion could be checked I took a shovel at one place and soon had all the burning coal for a short distance completely cut off, so that the fire ceased for a time at that spot. It is a pity that at least an attempt to put out the fire is not made. Many persons in the district have an idea that it is subterraneous, and that the seat of it cannot be reached. This is a mistake, as at the point mentioned I cleaned the fire off from the face of the seam to its base and found underneath no trace of burning. The lower seam appears to be of better quality, there being no shale or sand mixed with it, as far as I could see. Heavy rain detained us here for two days, and we burned a good deal of lignite from the lower seam, as we could not reach the top of the bank to procure wood, and could find only a log or two of driftwood. The coal burned well in the open air, and threw out a much stronger heat than a wood fire. These seams are visible at frequent intervals along the bank for eight and a half miles, after which no trace of them appears for seven miles, where there is another small exposure at the water's edge. This seam appears, from the reports of many travellers, to extend up Great Bear River for a considerable distance. No other traces of coal were observed on the river.

While at Fort Good Hope I noticed that many of the outbuildings and fences were painted with a dull red coloring matter, which, on inquiry, I found consisted of the ashes of wood that had lain in the river for some years. It was said poplar trees yielded the best paint, and that logs that had been in the water long enough were known by the dull blue color of the wood. A sample of the ashes I brought home, and handed to Dr. Dawson. It may be that the color is due to the presence of oxide of iron; if so, this would indicate the existence in the water of iron in solution. But where the iron comes from is a mystery, as none of this peculiar wood was seen or heard of on the upper river. The inference is that the iron occurs far down the river, but whether in the soil or in beds on some of the tributary streams, or

whether it is iron at all, has yet to be determined.

The Indians report very large deposits of mica on the south side of Great Slave Lake, and have brought small samples of it to Fort Resolution. While there I tried to get a specimen, but none was available. It is described as being very abundant.

No other minerals of economic value were seen or heard of, except bitumen. On the way up the first indication of this was seen on Great Slave Lake, in the form of the bituminous limestone which has already been referred to. Tar springs, as they are called in the vicinity, exist on the lake. I do not know of any of them on Slave River, but they abound on the Athabasca from near the delta for over two hundred miles up; and one is reported only a few miles from Athabasca Landing, less than one hundred miles from Edmonton.

The following extract from a report by Dr. Bell, of the Geological Survey, published in the Geological Survey Report for the year 1883, will show the geological

relation and general appearance of this tar:

"That the deposit is of cretaceous age, but rests directly on limestone of the Devonian system. The bedding of the latter undulates gently, while the asphaltic sand lies in thick horizontal layers upon its surface, and in some cases fills fissures in the upper part of the limestone. The asphaltic matter has no doubt resulted from petroleum rising up out of the underlying Devonian rocks, in which evidence of its existence can be detected. In descending Athabasca River it was first observed a few miles above the junction of the Clearwater branch, below which it becomes

more conspicuous, forming the whole banks of the stream, with the exception of a few feet of limestone at the base, for a distance of many miles. These banks are sometimes about one hundred and fifty feet in height, and frequently maintain an elevation of about one hundred feet for a considerable distance. Except where they have been long exposed to the weather, they generally look as black as coal. A thick tar is often seen draining out of the deposit, and in numerous places on the ground at the foot of either bank, or on terraces lower than their summits, this tar collects in pools, or flows in sluggish streams to lower levels among the peaty materials in the woods. The surface of these accumulations of tar is usually covered with a hardened pitchy crust. The boatmen on the river break through this crust to collect the underlying tar, which they boil down and use for pitching their craft."

In connection with this formation may be mentioned an escape of natural gas which occurs on the river a short distance below Grand Rapids. It comes out of the bank at the water's edge on the west side of the river. There is such a quantity of it that when ignited it will continue burning until the water rises and extinguishes the flame. The boatmen on the river use it to cook their meals. They say the flame sometimes rises to a height of several feet above the ground. It is said to come out of a narrow crevice which runs at right angles to the course of the river at this point and disappears in the water. The boatmen describe the sides of this crevice as bearing a strong resemblance to the tar-bearing sand seen farther down the river. This sand was first noticed by me in my descent of the river in 1884, about thirty-five miles below Grand Rapids; but, according to this statement of the boatmen, it occurs several miles farther up the river.

Tar springs are also reported on Little Slave River, but this I hardly credit as I have been up and down that river twice, and though I saw the place where they are said to exist I did not notice any tar. A tar spring is known near the mouth of Martin River, on Lesser Slave Lake, and specimens from it have been taken into Edmonton. I have heard of another tar spring on the Athabasca, near the mouth of the Pembina. There is also one on Tar Island, near Smoky River, twenty-three miles below where the cart trail crosses Peace River; and another some distance below that. These indications lead to the conclusion that all this vast region is underlaid by a deposit of this material. It appears that it is of little or no value in itself, except in so far as it indicates the existence of petroleum. If it shows the presence of petroleum of good quality we have here probably the largest oil-bearing district in the world, comprising nearly 150,000 square miles; and as the indications are said to extend down the Mackenzie below Lake Athabasca, the above area may be only a part of our northern oil district.

It is a pity that a test well has not been sunk in the vicinity of Athabasca Landing to determine the existence there, and the quality of the tar. If illuminating and lubricating oils and paraffin were found in quantity it would give an impetus to the development of that part of the North West which nothing else could.

When we consider the nearness of the southern limit of this district to the western coast of the continent (by the present trails and the railroads less than one thousand miles) we see that, in supplying our western country and a part of Asia with these products, this district possesses a great advantage. If it were once certain that an outlet could be had by the mouth of the Mackenzie for part of the year, the northern part of this district would, during the four or five months of navigation, have facilities for shipment almost unequalled, as the carriage down the Mackenzie would require very little motive power, only enough to keep the vessels from being beached. If it were found that the sea is not open long enough, or is too uncertain and hazardous, a cargo could be discharged at the foot of McDougall's Pass, and the oil could be pumped over the summit to navigable water on Bell River. True, it would have to be raised over an elevation of twelve hundred feet, involving a pressure on the lower pipes of about three hundred and sixty pounds to the inch; but the cost of the strong pipes required would be counterbalanced by the comparative cheapness of the descent of Mackenzie, Bell, Porcupine, and Yukon 19ART VIII

Rivers, while from the mouth of the latter it is only about three thousand six hundred

miles to Japan, as compared with about five thousand from San Francisco.

Mr. G. C. Hoffman, Chemist of the Geological Survey, says the tar or maltha, as at present found on the surface throughout a large district on the lower Athabasca, could be utilized for a bituminous concrete for the paving of roads, courtyards, basements, and warehouses, and for roofing. The tar is found combined with fine, colorless, siliceous sand, which constitutes 81.73 per cent. of the mixture.

Last fall a man named McDonald, living at the mouth of Red River on the Athabasca, undertook to dig a well at that place, but found all the soil to be so saturated with tar that he could get down only a few inches. He told me he tried several acres of ground before he could find a suitable place to dig for water. It is possible that a well bored at Edmonton would, at a reasonable depth, tap the formation containing this tar, and it is almost certain that one bored at Athabasca Landing would. A great deal might be said of the value of an oil deposit here; but as those interested in the trade fully understand all that, it is needless to do more than mention the localities in which indications are known to exist, and the facilities for getting to them, for the information of those desiring to test the question.

Large deposits of salt are reported on Salt River, some miles from Fort Smith. I did not have an opportunity of visiting them, but they are described as extensive. The salt is used all over the Peace, Athabasca, and Mackenzie districts, and to the taste is pure. Mr. McConnell, of the Geological Survey, visited the deposits in the fall of 1887, and no doubt will give a full and comprehensive report of

them.

The railroad station nearest to Edmonton is Calgary, on the Canadian Pacific Railway, the distance by the cart trail being about one hundred and ninety-six miles, and air line distance one hundred and seventy-two. All the material brought into Edmonton and also the northern district has to be freighted along this trail, and already the machinery for several steam mills has been hauled over it. The freight rates from Calgary to Edmonton are from one and a half to three cents per pound, according to the state of the roads and the necessities of the importer.

From Edmonton, by the existing trail, to Athabasca Landing is a distance of ninety-six miles, the direct distance being about ten miles less. The freight rate between these points is about two cents per pound. The Hudson's Bay Company hauls all the trading outfits for the posts north of Edmonton over this route, and the machinery for three steamboats has passed over it. In 1887 and 1888 there was a portable saw-mill at Athabasca Landing, with which to saw lumber for the construction of the steamer Athabasca. Had there been a drill there at the time a

test well could have been sunk at very slight cost.

The steamer Athabasca runs down the river one hundred and sixty-eight miles to the Grand Rapids. Between this and Fort McMurray there are eighty-three miles of rapids, on which the Hudson's Bay Company has a line of boats capable of carrying about ten tons each. From Fort McMurray there is almost unbroken easy navigation to the Arctic Ocean. The steamer also goes up the Athabasca to Little Slave River, sixty-eight miles from Athabasca Landing, and up the latter stream several miles. From the head of steamboat navigation on Little Slave River it is about sixty miles to Lesser Slave Lake, and about sixty along it to Lesser Slave Lake post; thence seventy-six miles by cart trail to Peace River Landing.

THE NATIVES.

On the Mackenzie I did not stay long enough to learn much about the Indians in the district, nor did I see many of them. While we were in the delta of the river nine large boats loaded with Esquimaux from the coast passed on their way up to Fort McPherson to do their trading for the season. These people come up from the coast in skin boats, made, it is said, of whale skin put around a wood frame. These boats present a very neat appearance, and are capable of carrying about two tons each. Whale oil is one of the articles they bring in for sale. The Esquimaux are reputed to be great thieves, and to require close watching. For this reason

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they were not encouraged to remain when they called on us. Moreover, as they are not very cleanly in person, their presence is not desirable. They were formerly very aggressive toward the Indians on the lower part of the river, frequently coming up and robbing and sometimes killing them. Many years ago they received a severe chastisement for this from the combined whites and Indians, and since that have been guilty of no very aggressive act, though they are inclined to be overbearing when they have the advantage in numbers. It is said that murders are frequent amongst themselves; and, as in most savage tribes, retribution is the prerogative of the kin of the murdered. Missionaries have tried to do something toward their moral improvement, but hitherto without very much effect. Many of them still hunt with the bow and arrow and spear, as it is not considered wise to trust them with gun and ammunition.

Through the kindness of the Hudson's Bay Company's officers I was furnished with the following census, taken in 1881, of the inhabitants in the vicinity of each post. At some of the posts I learned the number now living there, and in every case, when comparison was made between the census of 1881 and the number now living, it was found that the figures had decreased; but as the later count was hurried and necessarily imperfect, I will not give the figures, and only mention the fact that they are not increasing. This is also the opinion of all the people in the district to

whom I spoke on the subject.

The following table, from the census of 1881, includes, besides the Mackenzie Basin proper, Rampart House, on the Porcupine, and LaPierre's House, on Bell River:—

WHITE POPULATION.

Place.	Men.	Women.	Boys.	Girls.	Total.
Rampart House LaPierre's House and Fort McPherson Good Hope Norman Liard, Liard River Nelson, do Simpson Providence Rae Big Island	2 11 8 2 7 5 14 13 8	1 6 4 2 4 3 6 14 4	1 12 6 1 4 5 9 8	2 9 8 4 5 3 10 7 6	6 38 26 9 20 16 39 42 26 26
Totals	75	48	63	62	248

INDIANS.

					1
Rampart House	80	68	73	65	286
La Pierre's House	36	41	25	39	141
McPherson	93	87	95	76	351
Good Hope	178	142	132	131	583
Norman	74	76	58	46	254
Liard	46	47	75	48	216
Nelson	44	42	66	57	209
Simpson	130	136	124	110	500
Providence	92	106	142	116	456
Rae	128	147	188	152	615
Esquimaux at McPherson	80	100	80	90	350
Totals	981	992	1,058	930	3,961

The Rev. Father Grouard, Roman Catholic missionary at Chipewyan, who is well acquainted with all the country around Peace River and the lakes, gave me the 96

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following as the approximate numbers of the Indian population at the places mentioned. They are all in the Hudson's Bay Company's District of Athabasca:—

Resolution	300
Fort Smith	200
Chipewyan	500
Fond du Lac	250
Vermilion, Peace River	300
McMurray	
Total	1,700

I have no means of determining the Indian population in the Peace River District, which includes the Lesser Slave Lake valley; but, from my knowledge, having been there twice, I would not place the number at more than seven or eight hundred all told.

The Indians on the lower Mackenzie not having come much in contact with whites, except the missionaries and the Hudson's Bay Company's officers, have retained more of their primitive simplicity and truthfulness of manner than the Indians on the Peace and Athabasca. The native population on the Mackenzie did not appear to be as much mixed with white blood as that on the Peace and Athabasca; but, as I have not seen as much of the people on this as on the latter two rivers, such may not be the case.

At every point where I came in contact with the natives they were obliging and kind, but like all Indians I have met they expect to be well paid for it. This of course is much better than to have them display no feelings but those of extreme selfishness, and still expect all the kindness and attention one can bestow on them.

FROM FORT CHIPEWYAN TO EDMONTON.

As soon as the ice on the rivers was strong and the snow sufficiently deep I took my departure from Fort Chipewyan for Edmonton. I took three dog teams with me as far as Point Brulé on Athabasca River, from which place I sent back one of them, the other two going with me to Fort McMurray. I left Fort Chipewyan in the early morning (four o'clock) of the 27th of November, and travelled by way

of Quatre Fourches Channel and Lake Mammewa.

On the way across Lake Athabasca to the Quatre Fourches one of the men (Morison) dropped through the ice and had a very narrow escape from drowning. During the journey I made a rough survey of the channels and Lake Mammewa, which will enable me to lay it down on our maps better than has heretofore been done. I arrived at Fort McMurray on the afternoon of the 3rd of December. Here I had a day's rest, both men and dogs having much need of it. I left Fort McMurray on the morning of the 5th, taking the Hudson's Bay Company's winter trail to White Fish Lake, and having the assistance of two of their dog teams which were going across to the Long Portage.

From White Fish Lake I came south-easterly over an Indian trail, never before travelled by white men, to Heart Lake; thence to Lac la Biche; and thence by horses and sleighs to Victoria, on the Saskatchewan River. From Victoria to Edmonton wheels had to be used. I arrived at Edmonton on the evening of 23rd December, and after transacting some business there I left by waggon for Calgary on the morning of the 25th. I reached Calgary on the morning of the 29th

and left on the morning of the 30th, arriving in Winnipeg on the 31st.

On the way from Fort McMurray to Lac la Biche I kept up a survey of my track, rough, it is true, but on plotting it I find that it agrees with the latitudes of the terminal points within three or four miles, though these latitudes are uncertain. This will fill a gap in our maps, as heretofore nothing certain was known of that region.

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After spending some days in Toronto in connection with my magnetic work, I arrived in Ottawa on the 15th January, since when I have been busy preparing my maps and returns.

MAGNETIC OBSERVATIONS.

I give the results of the magnetic observations taken during the expedition. The declination was determined with a six-inch needle in a box which could be attached to the dip circle. It was made from the Surveyor-General's design, and suited the purpose very well, saving the trouble of carrying a compass. The total force was determined each time with two weights, thus giving two independent determinations, and the quantity given is the mean of these. Very seldom they differed by more than a unit in the second decimal place. The value is given in British units, but is computed and entered in the record book in both British and C. G. S. units. At Fort Good Hope I had the good fortune to meet an old French Canadian who went down the river in the spring of 1844 with Captain Lefroy (now General Sir J. H. Lefroy), when he went to that place to determine the magnetic elements. He showed me the post which Captain Lefroy had set up to observe on, and I placed my tripod over it. That was the only place at which Captain Lefroy observed where his position and mine were exactly the same.

While determining the declination at the Boundary Observatory on the Lewes River I took simultaneous readings of the needle and the declinometer, with which readings of the declination were taken twice daily during my stay there. This will afford a very close determination of the declination at this point. As most of the results are deduced from but one observation, their value is doubtful, especially in the case of the declination. The latitudes and longitudes given in my magnetic record on the Lewes and Pelly are deduced from the survey, and are correct to within a very few seconds of arc. Those between the Pelly and Mackenzie are only approximate; and those on the Mackenzie are those given by Captain Lefroy in his "Diary of a Magnetic Survey of a portion of the Dominion of Canada, executed in the Years 1842–1844." At one or two of the points I was unable to determine the declination, not being able, on account of clouds, to find the true astronomical azimuth

of a reference object.

Place.	Date.	Latitude.	Longitude.	Declination.	Dip.	Total Force.
Take Tambanan	1887.	o , 59 47·1	9 / 135 04·8	32 16.8	° ′ 77 05·1	12.969
Lake Lyndeman	July 17	60 21 1	134 17 2	32 46 1	77 32 5	13.076
Cañon Lewes River		60 42:3 62 04:5	135 04·1 136 04·0	30 55 2	77 43·9 78 16·4	12·884 13·068
Fort Selkirk	do 18	62 47.6	137 24 9	34 17 0	79 08.6	13.049
White RiverStewart River		$\begin{array}{cccccccccccccccccccccccccccccccccccc$	139 37 · 8 139 28 · 5	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	78 19·4 78 36·6	12·950 12·933
Forty-Mile River	Sept. 12	64 25.5	140 31.7	35 01 1	78 46 2	12.885
Boundary	Jan. 3	64 41.0	140 54.0	Not read.	78 49 9	13.002
do		$64\ 41.0$ $64\ 41.0$	140 54·0 140 54·0	35 45·3 35 47·5	78 49·4 78 49·4	$13.012 \\ 13.018$
Porcupine Riverdo	May 16	65 43·0 65 43·0	139 40·0 139 40·0	37 44·3 37 23·7	79 57·3 79 52·4	13.053 12.962
La Pierre's House	June 7	67 23.0	Unknown.	Not read.	81 24.7	12.998
McPherson		67 26·0 66 16·0	134 57 · 0 128 31 · 0	46 00.8	81 48·9 82 18·4	13·205 13·264
Norman	do 29	64 54 3	125 43·1 125 03·3	33 39·0 41 34·6	82 00.5	13.350
Mackenzie River	Aug. 5 do 27	$64\ 26.7$ $61\ 52.0$	121 25 2	37 42 3	81 56·1 81 19·2	13·360 13·501
Resolution	Sept. 20 Nov. 22	61 10·5 58 43·0	113 46·5 111 18·7	38 19·9 27 15·3	82 09·1 81 21·8	13.680 13.708
do	do 23	58 43.0	111 18.7	27 09.5	81 22.5	13.729
do	do 24	58 43.0	111 18.7	27 17 9	Not obs	erved.

In 1843 and 1844 Captain Lefroy observed at Forts Chipewyan, Resolution, Norman, and Good Hope. At Chipewyan his observations extended throughout the winter. His values there are: declination, 28° 45″.8; dip, 81° 36″.8; force, 13·885. At Resolution his declination was 37° 12′.5; dip, 82° 44′.4; force, 13.956. At Simpson; declination, 38° 00′.4; dip, 81° 52′.2; force, 13.808. At Fort Norman: declination not observed; dip, 82° 34′.3; force, 13.653. When he was there, Fort Norman was up the river from its present site, about midway between the place of my observations of 29th July and 5th August. At Fort Good Hope; declination not observed; dip, 82° 55′.9; force 13.681. At Fort Simpson Sir J. H. Lefroy's observations extended from 26th March until 25th May. The bi-daily readings of my declinometer at the Boundary for the months of November, December, January, and February are appended, and will serve to show the fluctations in, and the limit of the range of, the declination.

METEOROLOGICAL OBSERVATIONS.

In my meteorological observations, which are given in the appended tables, the barometer readings are recorded as read, and the temperature of the attached thermometer is always given, so that the temperature correction can be made at any time. After I left the Boundary on Lewes River the barometer readings are those of my aneroid, and the temperatures given with them are the temperatures of the air in which the barometer was exposed. Before leaving the Boundary I determined the effect on the aneroid of change of temperature. I give the readings, from which it will be seen that this particular instrument, at least, is pretty well compensated for temperature:

January 18th, 1888, temperature in house, 64° Fah.

Mercurial barometer, corrected for temp., 30·158; aneroid	$30 \cdot 215$
Outside temperature.—41° 0 Fah.; aneroid	$30 \cdot 120$
Range of temperature, 105°; range in aneroid	0.095
Correction for each degree of change in temperature	0.0000

A second and better trial on the same day resulted thus:

In house	, mercurial	barometer,	corrected for temperature	$30 \cdot 149$
do	aneroid	do		$30 \cdot 200$
Outside,	aneroid	do	************	$30 \cdot 121$

Inside temperature 689: outside—310.5: range 990.5.

notae temperature of , outside of o, range et o.	
Range in aneroid	0.079
Correction for change in mercurial barometer	0.003
Corrected range in aneroid barometer	
Correction for each degree of change in temperature	0.000763
Correction for each degree of change in competation	0 000.00

This, so far as ordinary changes of temperature are concerned, is less than the

probable error of reading the instrument, and may be neglected.

Before I began to keep the regular daily record I took, whenever I had an opportunity, simultaneous readings of the mercurial and aneroid barometers; and as such readings were taken while I was passing over the summit of the Taiya Pass we have the means of finding the value of the readings of this instrument up to an altitude of 3,400 feet. I give the corrected readings of the mercurial barometer, with no dates, for the sake of brevity, but the readings are entered in order of time:—

Mercurial	in.	in.	in.	in.	in.	in.	in.
	29·149	28·779	28·741	28·334	27 · 537	26 289	26·235
Aneroid	29.150	28.795	28.750	28:325	27.500	26.295	26.225

These comparisons might be extended, but I think the above are sufficient for the purpose intended, viz., to show the reliability of the aneroid which I used.

In the column headed "water change," the figures show the rise or fall in inches, the arrow denoting whether the water is rising or falling. Except on Sunday, the change during the night was alone noted, the average interval being about ten hours. The record for the last twelve days of October was given me by the Ven. Archdeacon Reeve, of Chipewyan, who, during his stay at that place, kept a daily

meteorological record for the head office at Toronto.

No regular record of the appearance and brilliancy of the aurora was kept during my stay at the Boundary. Nothing unusual was noticed in this connection, except its appearance two or three times in daylight. The first time I saw this phenomenon my attention was drawn to a long, thin, streamer-like cloud: as the air was perfectly calm it excited my curiosity and I watched it closely, noticing all the fluctuations in intensity, sudden increase and decrease in extent, and quickly shifting movement of the aurora. It was noticed again on two or three occasions and observed closely, to determine whether or not it was aurora, but always with the same result. It could have been nothing else. It was of about the brilliancy of pale aurora when seen at night, although the sun at the time was well above the horizon. Several members of the party observed all these appearances as well as myself. This phenomenon has been seen by several others. (See Encyclopædia Britannica, Vol. III, pages 90-91).

As to the aurora making an audible sound, although I often listened when there was a very brilliant display, and despite the profound stillness which is favorable to hearing the sound, if any sound occurs, I cannot say that I ever even fancied I heard anything. I have often met people who said they could hear a slight rustling sound whenever the aurora made a sudden rush. One man, a member of my party in 1882, was so positive of this that, on the 18th November, when there was an unusually brilliant and extensive display, I took him beyond all noise of the camp, blindfolded him, and told him to let me know when he heard anything, while I watched the play of the streamers. At nearly every brilliant rush of the auroral light he exclaimed: "Don't you hear it." All the time I was

unconscious of any sensation of sound.

A phenomenon which I never saw elsewhere or heard of was observed twice in the month of February, first on the 19th, and again on the 29th. This was green clouds. The display on the 19th was extensive and very beautiful; that on the 29th not so much so. This phenomenon was seen in the morning, just before sunrise, and on both occasions the sun was covered with downy, white clouds, while there was a very slight fall of minute ice crystals, accompanied by a much higher temperature than usual. The color was a brilliant emerald green, fringed on the lower side with yellow, which, as the sun gradually rose, encroached on the green, until the clouds were all yellow. This color changed to orange and red after the sun had risen above the horizon. The first time the green color lasted about a quarter of an hour; the second, only a few minutes. It is probable that the form of the snow crystals in the air produced abnormal refraction and made the green rays of the spectrum conspicuous.

Some of the miners who had been in the country during the winter of 1886-87 told me of the fall of a very large ærolite. None of them had made any note of the date, but all agreed it was two or three days before Christmas, 1886, about the hour of ten in the evening. The flash of light from it was described as very brilliant, making the interior of their ill-lighted huts as bright as mid-day. The report which followed its striking the earth was spoken of as terrific, and this was followed by a rumbling, crashing sound, as of rocks falling, which continued for some seconds after the report. I received accounts of this occurrence from two points, twenty-two miles apart. At these places the impression made was about equally intense. This will give an idea of its size, as well as of the distance away at which it must have struck, as at both places it appeared in the same direction. On the 17th of February, 1887, I was on my way from Forty Mile River to my winter quarters, and accompanying me was a miner who had witnessed the flash and heard the report of the ærolite. About nine miles above my destination we stopped and had some

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lunch. Just as we were starting again a tremendous explosion was heard, followed by a rending, crashing sound, as though the side had been torn out of a mountain and had fallen from a great height. The explosion appeared to shake the ice on which I was standing, and so near did it seem that I thought, if it were not for the snow that was falling thickly at the time, that the catastrophe would be seen on the

mountain side, only a mile or so away.

The miner, who was at the time engaged in arranging the harness on his dogs, instantly exclaimed: "That's one of them things." The direction the sound came from was about north-east. On my arrival at camp I found three miners there who had come up from Belle Isle, and they, too, heard the report and the rending and crashing of rocks. It appeared to them quite as loud as it did to us, and the direction from which the sound came was north-east. At the time we were over fifteen miles apart; hence, the source of the sound must have been a very long distance from both points. The time at which the explosion was heard was 1h. 10m. p.m., local time.

It would be ungrateful in me to close this report without acknowledging the kindness and attention of all with whom I came in contact on my travels. On the coast, the United States officers showed me personally every possible attention and kindness, and did all in their power to assist me in difficulties. In the interior the miners were not less attentive and thoughtful, and the traders, Messrs. Harper & McQuestion, were more than kind, giving me much valuable advice, often when it was against their own pecuniary interest to do so, and aiding me in my dealings with the natives to the best of their power. To the missionaries, both Protestant and Roman Catholic, on the Mackenzie River, I owe much for their hospitality and disinterested advice and assistance. To the officers of the Hudson's Bay Company, both myself personally, and the party generally, owe much for their readiness everywhere to assist us all they could. I can truthfully say that their kindness and assistance were disinterested and genuine, if aiding me often without being asked, and certainly with no pecuniary profit to themselves or the Company, is any proof of it.

To the four men who accompanied me through the whole journey I would here return thanks for their cordial co-operation and spirited readiness to do their duty at all times and in all places. They were called on to toil for long hours and under conditions more disagreeable and hazardous than fall to the lot of many; yet they never flinched, even when their lives were in danger. Their names deserve to be recorded here: they are William T. Morison, of Ormstown, Quebec; Charles T. Gladman, Peterborough, Ontario; F. F. Sparks, Winnipeg, Manitoba; and Frank G.

Parker, Waterville, Quebec.

The total result of the expedition has been in round numbers nearly 1,900 miles of accurate instrumental survey, and a very close approximate determination of the position of the International Boundary Line on Pelly-Yukon and Forty Mile Rivers. In addition to this about eight hundred miles of partially instrumental survey was made, which, when plotted, proves more accurate than I expected. Of this, between five and six hundred miles was over country previously unknown and untravelled by white men. The knowledge gathered by this expedition will enable us to almost complete the map of the extreme north-west portion of our Dominion, as it will serve as a skeleton on which to adjust aright the mass of disjointed information we already possess.

I have the honor to be, Sir, Your obedient servant,

WILLIAM OGILVIE,

Dominion Land Surveyor.

Declinometer Readings—The readings are taken to the nearest tenth of a division.

The value of a division in arc is 2' 1.4".

Day.	Nove	mber.	Decer	mber.	Janı	ary.	Febr	uary.
Day.	7:30 а.м.	1:30 р.м.	7:30 а.м.	1:30 р.м.	7:30 а.м.	1:30 р.м.	7:30 а.м.	1:30 р.м
1 2 3 4 5	285 · 0 280 · 0 282 · 0 282 · 0 285 · 2	266·0 268·0 272·5 271·2 303·5	$ \begin{vmatrix} (269 \cdot 0) \\ (270 \cdot 0) \\ 276 \cdot 0 \\ 273 \cdot 5 \\ 274 \cdot 5 \end{vmatrix} $	$\begin{array}{c} (268 \cdot 0) \\ (270 \cdot 0) \\ 268 \cdot 0 \\ 269 \cdot 0 \\ 267 \cdot 5 \end{array}$	268·0 273·0 272·0 273·8 274·5	264·0 265·0 269·0 270·0 271·6	$\begin{array}{c} 269\cdot 0 \\ 273\cdot 5 \\ 280\cdot 0 \\ 274\cdot 2 \\ 275\cdot 0 \end{array}$	265 · 5 263 · 0 263 · 0 260 · 0 268 · 0
6 7 8 9 10	317 · 8 321 · 0 312 · 0 286 · 2 299 · 0	327 · 0 314 · 2 304 · 0 289 · 0 294 · 0	$\begin{array}{c} 274.0 \\ 274.0 \\ 268.0 \\ 270.0 \\ 271.0 \end{array}$	262·0 267·0 267·5 268·0 268·5	274·0 282·0 273·5 275·3 275·0	272·5 269·0 273·0 272·5 270·0	272·0 270·5 275·5 279·0 280·5	270·0 270·0 260·0 270·5 269·0
11 12 13 14 15	284 0 280 0 278 9 277 5 278 0	287 · 0 281 · 0 271 · 5 271 · 5 271 · 0	$\begin{array}{c c} 270 \cdot 0 \\ 270 \cdot 0 \\ 265 \cdot 5 \\ 268 \cdot 2 \\ 272 \cdot 0 \end{array}$	269·0 264·0 259·0 264·0 264·0	276 · 0 273 · 5 275 · 0 288 · 0 278 · 0	$\begin{array}{c} 265.0 \\ 269.5 \\ 269.0 \\ 265.0 \\ 270.0 \end{array}$	279·0 280·0 272·0 271·2 272·0	272 · 0 270 · 0 268 · 0 266 · 0 268 · 0
16 17 18 19 20	278 · 0 280 · 2 284 · 0 280 · 5 267 · 0	273 · 0 267 · 0 270 · 0 274 · 0 251 · 5	$\begin{array}{c} 260 \cdot 0 \\ 314 \cdot 0 \\ 271 \cdot 0 \\ 270 \cdot 0 \\ 276 \cdot 0 \end{array}$	257 0 259 5 260 0 264 0 265 0	$\begin{array}{c} 273 \cdot 0 \\ 271 \cdot 5 \\ 272 \cdot 0 \\ 270 \cdot 0 \\ 272 \cdot 0 \end{array}$	270·0 270·0 268·0 265·5 269·0	301·0 288·0 278·0 281·0 282·0	266 · (276 · (249 · (267 · (264 · (
21 22 23 24 25	331·0 296·0 274·0 (269·0) (271·0)	269 · 0 270 · 5 271 · 0 (260 · 0) (269 · 0)	272·5 273·0 272·0 269·0 272·2	266 · 0 269 · 0 267 · 0 264 · 0 269 · 0	276 · 0 274 · 0 291 · 0 287 · 0 280 · 0	262·0 265·0 263·0 266·0 265·5	276·0 284·0 274·5 279·0 275·0	267 · 262 · 266 · 267 · 270 ·
26 27 28 29 30 31	(273·0) (274·0) (273·0) (273·0) (268·0)	(272·0) (272·0) (272·0) (272·0) (268·0)	276·0 290·0 278·0 269·0 273·5 270·0	268 · 0 268 · 0 266 · 0 262 · 0 259 · 5 262 · 0	282 · 0 270 · 6 275 · 0 272 · 0 270 · 0 278 · 0	268·0 259·5 262·9 262·0 268·0 258·0	278·5 276·0 282·0 280·2	268 · 270 · 267 · 269 ·

Note.—During the last days of November and the first part of December, the fibres suspending the magnet had stretched so much that the bottom of the mirror attached to it touched the bottom of the box, and it could not move freely. These defective readings are put in brackets.

As the north end of the magnet moved to the east, the reading increased, and vice versa.

METEOROLOGICAL Record for the Month of August, 1887.

Day.	Min. Tempera- ture.	Bar- ometer.	Attached Ther- mometer.	Remarks.	Day.	Min. Tempera- ture.	Bar- ometer.	Attached Ther- mometer.	Remarks.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17	23 7 42 0 21 6 49 0 32 5 42 0 31 0 53 7 38 8 32 7 42 0 44 0 41 8 38 7 43 2 42 0 48 0	in. 27-691 27-856 27-936 27-913 28-054 28-152 28-230 27-830 28-142 28-286 28-393 28-444 28-468 28-468 28-468 28-468	52 5 50 0 53 5 55 0 42 5 51 0 60 0 57 0 44 0 58 5 48 5 52 0 56 0 56 0 50 0 50 0		18 19 20 21 22 23 24 25 26 27 28 29 30 31	38·0 44·0 45·3 39·0 47·0 32·3 41·2 40·5 46·0 43·6 31·3 33·0 43·8 44·5	in. 28 417 Out of do do 28 763 28 531 28 434 28 493 28 387 28 269		

Note.—This record began 15 miles below Lake Labarge and ended 66 miles below Stewart River.

METEOROLOGICAL Record for the Month of September, 1887.

Day.	Min. Tempera- ture.	Bar- ometer.	Attached Ther- mometer.	Remarks.	Day.	Min. Tempera- ture.	Bar- ometer.	Attached Ther- mometer.	Remarks.
	0	in.	0			0	in.	, 0	
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	44 7 46 0 38 8 45 0 45 3 36 0 42 5 40 5 34 0 37 0 40 0 31 0 16 0 27 0 28 0 31 0	28·662 28·857 28·868	55·0 56·5 32·0		17 18 19 20 21 22 23 24 25 26 27 28 29 30	28·0 24·0 31·4 27·6 21·6 21·5 29·6 25·7 24·8 26·4 24·6 36·3 18·8 27·3	29 150 28 975 28 975 29 913 29 917 28 930 28 991 28 736 28 826 28 528 28 440 28 543 28 910 28 728	31 0 38 0 41 0 31 0 24 0 23 3 32 3 31 0 34 0 31 0 39 0 24 0 30 0 39 0 24 0 30 0	÷

Note.—First snow in the valley on 23rd inst. Temperature of river water on 30th inst. $=40^{\circ}$

METEOROLOGICAL Record for the Month of October, 1887.

Day.	Min. Tempera- ture.	Bar- ometer.	Attached Ther- mometer.	Remarks.	Day.	Min. Tempera- ture.	Bar- ometer.	Attached Ther- mometer-	Remarks.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	25·0 23·5 24·0 26·2 21·5 10·8 18·6 29·1 23·5 23·1 25·0 17·8 24·0 24·5	in. 28 · 684 28 · 827 28 · 625 28 · 981 28 · 979 28 · 605 28 · 745 29 · 175 29 · 197 29 · 1068 28 · 529 28 · 529 28 · 529 28 · 555 28 · 389	28 · 5 27 · 4 28 · 0 29 · 5 28 · 7 12 · 0 23 · 5 31 · 7 24 · 0 28 · 5 27 · 0 19 · 0 27 · 0 26 · 0 37 · 5 25 · 0		18 19 20 21 22 23 24 25 26 27 28 29 30 31	31 · 0 23 · 0 26 · 0 19 · 2 14 · 5 4 · 0 6 · 5 16 · 5 16 · 5 18 · 8 8 · 8 13 · 0	in. 28 '498 28 '919 29 '124 29 '364 29 '627 29 '430 28 '978 28 '701 28 '387 28 '527 28 '260 28 '564 28 '913 28 '813	33·5 24·0 28·0 21·8 17·2 9·0 6·0 12·0 23·5 64·0 70·0 68·0 70·0 31·2	

Note.—First ice running in river on 21st inst.

METEOROLOGICAL RECORD for the Month of November, 1887.

Day.	Min. Tempera- ture.	Barometer, 7.30 A.M.	Attached Ther- mometer.	Barometer,	Attached Ther- mometer.	Day.	Min. Tempera- ture.	Barometer, 7.30 A.M.	Attached Ther- mometer.	Barometer,	Attached Ther- mometer.
	0	in.	٥	in.	0		0	in.	٥	in.	0
1 2 3 4 5 6 7 8 9 10 11 12 13 14	-1.5 -0.5 -16.0 -14.5 -1.0 -2.8 -17.5 -2.2 -4.0 -20.8 -22.5 -14.0 -10.5 -24.1	28 · 931 29 · 061 28 · 300 28 · 356 28 · 679 28 · 475 28 · 655 28 · 626 28 · 479 28 · 711 29 · 000 28 · 827 28 · 828	67·0 68·0 66·0 61·0 65·0 66·0 65·0 62·5 55·5 61·5 61·8	28 · 933 28 · 964 28 · 415 28 · 672 28 · 520 28 · 650 28 · 853 29 · 020 28 · 850 28 · 852 28 · 852 28 · 952	77.0 71.0 	17 18 19 20 21 22 23 24 25 26 27 28 29	$\begin{array}{c} 1 \cdot 0 \\ -0 \cdot 5 \\ -12 \cdot 5 \\ -2 \cdot 0 \\ -12 \cdot 8 \\ 10 \cdot 5 \\ 10 \cdot 0 \\ -18 \cdot 5 \\ -17 \cdot 0 \\ -5 \cdot 0 \\ -1 \cdot 0 \\ 3 \cdot 0 \\ 5 \cdot 0 \\ -16 \cdot 5 \\ \end{array}$	28·739 29·024 28·820 29·154 29·047 28·927 29·345 29·649 29·521 29·288 29·159 29·075 29·374 29·524	67·5 63·0 60·5 59·0 61·0 71·5 69·0 68·0 72·5 70·0 70·5 65·5	28 · 894 28 · 948 28 · 910 29 · 189 29 · 030 28 · 997 29 · 548 29 · 623 29 · 471 29 · 230 29 · 136 29 · 054 29 · 427 29 · 499	68·5 66·0 67·0 63·0 58·5 75·0 68·0 71·0 64·0 60·0 68·0 67·0
15 16	$-10.8 \\ -0.2$	28.980	64.0	29·030 28·856	68·0 75·0	Avera	age -5·1	28.940	64.6	28.993	69.5

Note.—Ice set in the river on the 15th inst., at 10 p.m.

METEOROLOGICAL Record for the Month of December, 1887.

Minimum Temperature.	1.30 р.м.	Barometer, 7.30 A.M.	Attached Thermometer.	Barometer, 1.30 P.M.	Attached Thermometer.	Day.	Minimum Tem- perature.	1.30 р.м.	Barometer, 7.30	Attached Thermometer.	Barometer, 1.30 P.M.	Attached Thermometer.
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	-24 · 0 -38 · 0 -36 · 0 -41 · 0 -42 · 5 -40 · 0 -42 · 5 -28 · 0 -17 · 5 -32 · 0 -34 · 0 -27 · 0 -49 · 0 -37 · 0	in. 29·357 29·561 29·580 29·583 29·537 29·331 29·120 29·185 29·267 28·795 28·347 28·834 29·103 28·449 28·599 29·662 29·173	67·0 62·0 67·0 57·0 59·0 62·0 61·0 57·0 63·5 63·0 57·0 63·5 61·0 63·5 61·0 63·5	in. 29°363 29°603 29°544 29°289 29°081 29°259 29°250 28°547 28°399 29°000 28°820 28°820 28°806 29°119 29°277	73·0 70·0 	18 19 20 21 22 23 24 25 26 27 28 29 30 31	-55·1 -23·0 -6·0 -6·0 -33·5 -27·0 -38·0 -41·1 -26·5 -23·0 -44·5 -32·1 -10·5	$ \begin{array}{c} 9 \\ -42 \cdot 5 \\ -14 \cdot 0 \\ 10 \cdot 5 \\ -6 \cdot 0 \\ -24 \cdot 0 \\ -36 \cdot 5 \\ -21 \cdot 0 \\ -17 \cdot 0 \\ -23 \cdot 0 \\ -27 \cdot 5 \\ -40 \cdot 0 \\ -41 \cdot 5 \\ -10 \cdot 5 \\ 00 \cdot 0 \\ -27 \cdot 6 \\ \end{array} $	in. 29 · 624 29 · 300 28 · 637 28 · 849 29 · 259 29 · 084 29 · 339 29 · 324 29 · 166 29 · 638 29 · 716 29 · 392 28 · 903 28 · 575	57·0 61·5 63·0 61·5 57·0 52·0 58·5 55·0 63·0 59·5 55·0 55·0 60·0	in. 29·557 29·200 28·650 29·025 29·247 29·204 29·365 29·337 29·224 29·716 29·678 29·326 28·883 28·556	62·0 68·0 64·0 62·5 66·0 60·0 66·5 68·0 62·0 64·0 59·0 64·0 64·8

^{*} At 7.30 a.m. thermometer read 3.5.

METEOROLOGICAL Record for the Month of January, 1888.

Day.	Minimum Tem- perature.	1.30 г.м.	Barometer, 7.30 A.M.	Attached Thermometer.	Barometer, 1.30 P.M.	Attached Thermometer.	Day.	Minimum Tem- perature.	1.30 Р. М.	Barometer, 7.30 A.M.	Attached Thermometer.	Barometer, 1.30 P.M.	Attached Thermometer.
2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	0 -10·5 -00·7 1·5 2·0 -12·0 -19·0 4·0 1·0 -9·3 * 1·0 -41·0 -41·0 -32·0 -19·0 -41·0 -41·5 -41 -41 -41·5 -41 -41 -41 -41 -41 -41 -41 -41 -41 -41	0·0 1·5 9·5 12·5 0·5 3·2 13·0 1·0 30·5 9·5 -11·0 -8·0 -46·5	in. 28 610 29 122 29 445 29 29 29 29 27 29 381 29 272 29 382 29 412 29 184 29 284 30 186 29 175 29 775 29 784 30 118	57·0 66·0 64·0 68·0 65·0 66·0 66·0 66·5 66·0 65·0 62·5 72·5 63·0 62·5 58·5	in. 28·764 29·237 29·513 29·265 29·302 29·289 29·333 29·432 29·289 29·120 30·107 30·190 30·004 29·679 29·559 29·914 30·198	67.0 70.0 75.0 76.0 71.0 69.0 78.0 70.0 68.0 70.0 68.0 69.0 68.0 68.0 69.5	18 19 20 21 22 23 24 25 26 27 28 29 30 31	-51·0 -33·8 -27·0 -33·5 -37·0 -32·5 -46·0 -20·3 -36·0 -20·3 -36·0 -38·0 -37·8 -53·0 -53·5	-33 · 8 -22 · 0 -32 · 0 -32 · 0 -18 · 5 -14 · 5 -14 · 5 -23 · 7 -22 · 5 -37 · 5 -40 · 5 -38 · 5 -15 · 3	in. 30 279 30 071 29 784 29 694 29 410 29 276 29 120 28 819 28 661 28 341 28 937 29 991 29 309	57·0 58·8 62·0 59·2 59·0 57·5 58·8 56·0 57·0 48·0 51·5 52·0 48·0 60·9	in. 30·265 30·048 29·743 29·671 29·440 29·260 29·089 28·819 28·597 28·317 28·689 29·053 29·031 29·459	67·5 64·2 67·2 67·0 63·6 67·0 64·0 65·4 66·0 60·0 58·0 66·0 62·0 61·0

^{*} At 7.30 a.m. thermometer read 1.0.

METEOROLOGICAL Record for the Month of February, 1888.

Day.	Minimum Tem- perature.	∘ 1:30 Р.М.	Barometer, 7:30	Attached Thermometer.	Barometer, 1:30	Attached Ther- mometer.	Day.	Minimum Tem- perature.	, 1:30 г.м.	Barometer, 7:30	Attached Ther- mometer.	Barometer, 1:30	Attached Thermometer.
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16	-52-7 -39-5 -22-5 -18-5 -9-8 -6-1 1-0 2-2-5 +10-5 -4-5 -26-5 -39-9 -46-8 -47-0 -44-5 -24-2	$\begin{array}{c} & & & \\ -39 \cdot 5 & -7 \cdot 5 \\ -7 \cdot 6 \cdot 5 & -9 \cdot 7 \\ -9 \cdot 7 & -5 \cdot 5 \\ 2 \cdot 5 \cdot 7 \cdot 0 \\ -14 \cdot 0 & -4 \cdot 5 \\ -16 \cdot 8 & -16 \cdot 8 \\ -24 \cdot 5 & -8 \cdot 0 \\ -24 \cdot 5 & 2 \cdot 5 \\ \end{array}$	in. 29:757 29:379 29:539 29:153 29:223 28:947 28:656 28:901 28:993 28:981 29:025 29:097 29:352 29:085 28:758	51·0 55·5 63·5 54·5 54·7 60·0 61·7 59·0 67·0 63·0 56·0 57·0 58·0 61·5	in. 29.7415 29.416 29.039 29.290 29.290 28.8966 28.774 28.9966 28.9063 29.050 29.063 29.354 28.983 28.883	59·0 64·5 69·0 65·6 67·0 66·0 67·0 71·0 67·0 72·0 67·0 71·0 69·0	17 18 19 20 21 22 23 24 25 26 27 28 29	-15·0 -3·8 3·8 -6·5 -10·2 -16·0 -21·2 -35·0 -4·0 -11·0 -10·0 11·2 -16·8	-0.5 14.0 5.5 -5.0 -5.4 -14.5 -11.0 15.5 9.3 18.0 24.2 -4.3	in. 28:817 28:712 28:72 28:451 28:677 28:709 28:844 29:274 29:290 29:039 28:777 29:325 29:305 29:140 29:031	65·0 62·0 77·0 64·5 62·0 62·0 64·0 67·0 69·0 65·0 68·0 68·0 68·0 68·0	in. 28:773 28:699 28:540 28:856 28:683 28:940 29:373 29:112 28:920 28:974 29:364 29:236	66·0 74·0 74·0 71·0 69·0 72·0 72·0 70·0 70·0 74·0 69·2

^{*} At 7:30 a.m. thermometer read 10.5.

METEOROLOGICAL Record for the Month of March, 1888.

Day.	Min. Tempera- ture.	1:30 р.м.	Barometer, 7:30 A.M.	Tem- perature.	Barometer, 1:30 P.M.	Tem- perature.	Barometer, Evening.	Temper- ature.
1 2 3 4 5	$-\frac{2\cdot 3}{3\cdot 0}$	21·2 23·5	in. 29·328 29·197	65.0	in. 29·240 29·170	78·0 74·0	in.	0
6 7 8 9 10 11 12 13	-43·0 -49·7 -52·7 -47·0 -25·0		29·380 29·480 29·200 28·960 29·080	40·0 25·0 28·0 30·0 40·0				
13 14 15 16 17 18 19 20	$-25^{\circ}0$ $-30^{\circ}7$ $-11^{\circ}0$ $-0^{\circ}5$ -15° $-16^{\circ}0$ $-6^{\circ}7$ $-3^{\circ}0$		29 · 080 29 · 020 28 · 780 28 · 710 28 · 680 28 · 360 28 · 610 28 · 220	40 0 30 0 40 0 40 0 10 0 16 0 00 0 3 0	At Noon. 28:480 27:940	0.0	28 · 640 28 · 500 28 · 300 28 · 200 27 · 400	10·0 14·0 20·0 00·0 20·0
21 22 23 24 25 26	$ \begin{array}{r} 6 \cdot 0 \\ -15 \cdot 7 \\ -13 \cdot 2 \\ 2 \cdot 0 \\ 6 \cdot 6 \\ 3 \cdot 0 \end{array} $		27 · 300 26 · 420 26 · 440 26 · 480 26 · 740 26 · 480	$\begin{array}{c} 6.0 \\ -15.7 \\ -13.0 \\ 2.0 \\ 6.0 \\ 13.0 \end{array}$	27·070 26·500 	20·0 26·0 30·0 30·0	26 · 440 26 · 500 26 · 440 26 · 640 26 · 640 26 · 540	15·0 -5·0 3·0 20·0 15·0 16·0
27 28 29 30 31	$ \begin{array}{r} -0.7 \\ -15.0 \\ 17.0 \\ -16.2 \\ 22.0 \end{array} $		26 · 590 26 · 960 · 26 · 800 27 · 160 26 · 940	$\begin{array}{c} 6.0 \\ -10.0 \\ 20.0 \\ -10.0 \\ 26.0 \end{array}$	26.660 26.940 	30·0 22·0 20·0 40·0	26 · 710 26 · 820 27 · 600 27 · 070 26 · 860	18·0 20·0 15·0 25·0 25·0

Note.—Barometer temperatures taken from atmosphere in ordinary way.

All readings from the 3rd of March to the 10th of April, inclusive, were taken while on the move from the Yukon to Porcupine River.

Barometer readings taken with an aneroid barometer.

METEOROLOGICAL Record for the Month of April, 1888.

Day.	Minimum Tem- perature.	1:30 р.м.	Barometer, 7:30 A.M.	Tempera- ture.	Barometer, 1:30 P.M.	Tempera- ture.	Barometer, Evening.	Tempera- ture.
1 2 3 4 5 6 7 8 9 10	7·0 -31·6 -36·5 -37·7 -37·3 -36·7 -17·0 -12·7 -34·0 -28·7		in, 26 · 93 26 · 96 26 · 92 26 · 51 26 · 39 26 · 34 26 · 56 26 · 86 26 · 92 27 · 06	12·0 -25·0 -10·0 -20·0 -15·0 7·0 -4·0 8·0 -25·0 -15·0	in. 26 98 26 59 26 96 27 08 27 38	11·0 17·0 20·0 20·0	in, 27 · 01 27 · 10 26 · 72 26 · 49 26 · 36 26 · 64 26 · 66 27 · 00 27 · 10	6·0 10·0 0·0 12·0 0·0 0·0 10·0 10·0 12·0
12 13 14 15 16 17 18 19 20 21 22 23	$\begin{array}{c} -24\cdot0 \\ -19\cdot8 \\ -24\cdot0 \\ -13\cdot0 \\ -17\cdot3 \\ -26\cdot0 \\ -24\cdot2 \\ -18\cdot0 \\ -19\cdot6 \\ -8\cdot0 \\ -14\cdot2 \\ -30\cdot8 \end{array}$	30·5 31·5 18·0 7·0 2·0 5·0	27·23 27·39 27·55 27·82 27·94 27·78 27·68 27·68 27·63 27·73 27·84 27·78	$\begin{array}{c} -15 \cdot 0 \\ -10 \cdot 0 \\ -10 \cdot 0 \\ -8 \cdot 0 \\ -6 \cdot 0 \\ -7 \cdot 0 \\ -10 \cdot 0 \\ -8 \cdot 0 \\ -10 \cdot 0 \\ 30 \cdot 0 \\ 30 \cdot 0 \\ 30 \cdot 0 \\ 20 \cdot 0 \\ \end{array}$	27 · 46 27 · 64 27 · 89 27 · 96 27 · 69 27 · 68 27 · 80 27 · 86 27 · 74	30·0 20·0 26·0 20·0 30·0 30·0 34·0 30·0	27 · 30 27 · 47 27 · 71 27 · 93 27 · 93 27 · 68 27 · 66 27 · 65 27 · 80 27 · 84 27 · 76	4 · 0 20 · 0 18 · 0 0 · 0 7 · 0 10 · 0 17 · 0 30 · 0 30 · 0 30 · 0 30 · 0 30 · 0
24 25 26 27 28 29 30	$\begin{array}{c} -24.0 \\ -19.5 \\ -9.5 \\ -9.6 \\ -7.6 \\ -10.7 \\ -6.0 \end{array}$	22·0 23·0 9·0 9·0 16·0 37·0 40·0	27·76 27·82 27·95 27·95 27·74 27·46 27·62	30·0 35·0 30·0 30·0 20·0 30·0 30·0	27 76 27 83 28 00 27 95 27 66 27 46 27 58	20·0 30·0 32·0 22·0 30·0 36·0 44·0	27 · 78 27 · 84 28 · 00 27 · 78 27 · 62 27 · 48 27 · 52	34·0 30·0 32·0 22·0 20·0 40·0 38·0

Notes.—Barometer temperatures taken from atmosphere in ordinary way.

All readings from the 12th of April to the 27th of May, inclusive, were taken at a stationary camp at the head of Porcupine River.

Barometer readings taken with an aneroid barometer.

METEOROLOGICAL Record for the Month of May, 1888.

-								
Day.	Minimum Tem- perature.	1:30 р.м.	Barometer, 7:30 A.M.	Temperature.	Barometer, 1:30 p.m.	Tempera-	Barometer, Evening.	Temperature.
	0	0	in.	0	in.	0	in.	0
1 2 3 4 5 6 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23	$\begin{array}{c} 19.7 \\ 28.0 \\ 9.0 \\ 6.0 \\ -1.8 \\ 16.8 \\ 9.3 \\ 17.8 \\ 12.7 \\ 22.5 \\ 18.0 \\ 21.5 \\ 20.0 \\ 21.5 \\ 16.3 \\ 17.3 \\ 21.0 \\ 29.0 \\ 15.5 \\ 15.0 \\ 23.5 \end{array}$	51·2 34·0 	27 · 42 27 · 23 27 · 36 27 · 44 27 · 25 27 · 20 27 · 33 27 · 29 27 · 36 27 · 34 27 · 45 27 · 78 28 · 04 27 · 64 27 · 64 27 · 78 28 · 04 27 · 78 28 · 04 27 · 64 27 · 78 27 · 78 28 · 04 27 · 64 27 · 64 27 · 70 27 · 78 27 · 76 27 · 76	30·0 30·0 16·0 20·0 30·0 25·0 30·0 30·0 30·0 30·0 30·0 40·0 40·0 40	27 · 35 27 · 26 	45 · 0 40 · 0 35 · 0 40 · 0 45 · 0 44 · 0 44 · 0 44 · 0 40 · 0 40 · 0 40 · 0 40 · 0 56 · 0 56 · 0 50 · 0 36 · 0 40 · 0 44 · 0 40 · 0 41 · 0 42 · 0 43 · 0 44 · 0 44 · 0 44 · 0 44 · 0 40 · 0 32 · 0 40 · 0	27 · 27 27 · 30 27 · 40 27 · 49 27 · 12 27 · 31 27 · 30 27 · 26 27 · 26 27 · 26 27 · 40 27 · 46 27 · 55 27 · 95 27 · 72 27 · 72 27 · 72 27 · 74 27 · 46 27 · 48 27 · 45	46·0 30·0 30·0 30·0 35·0 40·0 40·0 40·0 30·0 36·0 36·0 36·0 40·0 40·0 40·0 36·0 36·0 36·0 40·0 40·0 36·0 36·0 36·0 40·0 40·0 36·0 36·0 36·0 36·0 36·0 36·0 36·0 36·0 36·0 36·0 36·0 36·0 36·0 36·0 36·0 36·0 36·0 30·0 36·0
24 25 26	$\begin{array}{c} 21.0 \\ 17.0 \\ 31.0 \end{array}$	36.0 39.0 48.0	27 · 50 27 · 47 27 · 68	26·0 31·0 44·0	27 · 54 27 · 50 27 · 67	38·0 39·0 48·0	27 · 49 27 · 52 27 · 68	25·0 30·0 43·0
27 28 29	$\begin{array}{c} 33.0 \\ 31.0 \\ 29.2 \end{array}$	50.0 54.0 53.0	27 · 92 27 · 97 27 · 93	48.0 40.0 35.0	27 · 94 28 · 06 27 · 90	50·0 54·0 53·0	27 · 92 27 · 99 28 · 03	43·0 41·0 40·0
30 31	$ \begin{array}{c} 26 \cdot 2 \\ 28 \cdot 2 \end{array} $	51·5 43·5	27·95 28·41	36·0 48·0	27 · 98 28 · 60	56·0 44·0	28·28 28·71	50·0 41·5

 $\begin{tabular}{ll} \textbf{Notes.} \end{tabular} - \begin{tabular}{ll} \textbf{Barometer temperatures taken from atmosphere in ordinary way.} \\ \textbf{Barometer readings taken with an aneroid barometer.} \end{tabular}$

METEOROLOGICAL Record for the Month of June, 1888.

Day.	Minimum Tem- perature.	Barometer,	Tem- perature	Barometer,	Tem- perature.	Barometer, Evening.	Tem- perature.	Tempera- ture, 1;30 P.M.
	0				0			
_		in.		in.		in.		
1	29.1	28.82	46.0	28.88	56.0	28.91	40.0	56.0
2	25.5	28:94	42.0	29:00	42.0	29.12	40.0	42.5
. 3	20.3	29.12	32.0	29.15	46.0	29.14	52 0	52.0
4	17:0	29:20	35 0	29:27	52.0	29.29	37:0	52.0
5	18.3	29:32	32.0	29:31	56.0	29:30	50.0	× 56·0
6	22.0	29.28	40.0	29:14	58.0	29:07	40.0	60.0
7	32.0	28.87	40.0	28.82	50.0	28.88	49.0	50.0
8	33.0	28·99 29·09	40.0	29·00 29·06	50.0	28.99	46.0	52.0
9	27:3	29 09	56.0		52.0	28.99	40.0	52.0
10	25·0 30·6	28.79	40.0	28·87 28·80	70·0 60·0	28·86 28·84	35.0	68.0
$\begin{array}{c} 11 \\ 12 \end{array}$	21.7	28 19	37.0	28 83	45.0	28 84	34.0	48.0
13	22.4	28.88	34.0	28.83	40.0	28.79	31.0	48 0
14	15.6	28.56	40.0	28.56	50.0	28.45	48.0	50.0
15	17.0	28.37	45.0	28.36	50.0	28.40	38.0	50.0
16	25.3	28.42	38.0	28.57	90.0	28.98	30.0	60.0
17	31.0	29.06	58.0	29.06	60.0	29.09	52.0	60.0
18	33.0	29.18	48.0	29.70	62.0	29 09	48.0	62.0
19	32.0	29.94	50.0	29.96	62.0	29.98	52.0	60.0
20	37.3	30.02	50.0	30.02	70.0	30.00	60.0	72.0
$\frac{20}{21}$	47.0	30.10	60.0	29.96	74.0	29.86	60.0	74.0
$\frac{21}{22}$	48.0	29.86	62.0	29.83	71.0	29.87	50.0	71.0
23	40.0	29.87	60.0	29.88	70.0	29.91	45.0	71.0
$\frac{23}{24}$	42.0	29.99	56.0	30.01	70.0	30.08	20.0	54.0
$\frac{24}{25}$	43.0	30.12	54.0	30.14	58.0	30.10	53.0	58.0
26	43.0	30.12	60.0	30.01	56.0	29.96	52.0	56.0
27	42.0	29.99	42.0	29.93	50.0	29.86	64.0	56.0
28	42.3	29.85	42.0	29.86	54.0	29.86	48.0	54.0
29	42.0	29.79	55.0	29.84	56.0	29.84	49.0	56.0
30	50.0	29.86	55.0	29.85	58.0	29.84	43.0	58.0
30					55 0	- 01	-50	

 $\begin{tabular}{ll} Notes. — Barometer temperatures taken from atmosphere in ordinary way. \\ Barometer readings taken with an aneroid barometer. \\ \end{tabular}$

METEOROLOGICAL Record for the Month of July, 1888.

1 2 3 4 5 6 7 8 9 10 11	Temperature. 0 34·5 34·0 25·0 38·5 34·2 35·0 48·0 50·8 51·4	1:30 P.M. 63:0 36:0 54:0 68:0 69:0 70:0 72:0 68:0	in. 29.84 29.83 29.95 29.99 30.02 30.00	Temperature. 0 60.0 42.0 44.0 46.0	in. 29.80 29.88 29.95 29.98	Temperature. 63.0 63.0 50.0	in. 29.74 29.90	Temperature. 0 48.5 38.0	in. 3.0 + 7.0 +
2 3 4 5 6 7 8 9	34·5 34·0 25·0 38·5 34·2 35·0 48·0 50·8	$\begin{array}{c} 63 \cdot 0 \\ 36 \cdot 0 \\ 54 \cdot 0 \\ 68 \cdot 0 \\ 69 \cdot 0 \\ 70 \cdot 0 \\ 72 \cdot 0 \end{array}$	29.84 29.83 29.95 29.99 30.02 30.00	60·0 42·0 44·0 46·0	29.80 29.88 29.95	36·0 63·0	29·74 29·90	48·5 38·0	3.0 +
2 3 4 5 6 7 8 9	34·5 34·0 25·0 38·5 34·2 35·0 48·0 50·8	$\begin{array}{c} 63 \cdot 0 \\ 36 \cdot 0 \\ 54 \cdot 0 \\ 68 \cdot 0 \\ 69 \cdot 0 \\ 70 \cdot 0 \\ 72 \cdot 0 \end{array}$	29.84 29.83 29.95 29.99 30.02 30.00	60·0 42·0 44·0 46·0	29.80 29.88 29.95	36·0 63·0	29·74 29·90	48·5 38·0	3.0 +
2 3 4 5 6 7 8 9	34·0 25·0 38·5 34·2 35·0 48·0 50·8	36·0 54·0 68·0 69·0 70·0 72·0	29·83 29·95 29·99 30·02 30·00	42·0 44·0 46·0	29·88 29·95	36.0	29.90	38.0	
3 4 5 6 7 8 9	25·0 38·5 34·2 35·0 48·0 50·8	54·0 68·0 69·0 70·0 72·0	29·95 29·99 30·02 30·00	44·0 46·0	29.95				
4 5 6 7 8 9	38·5 34·2 35·0 48·0 50·8	68·0 69·0 70·0 72·0	29·99 30·02 30·00	46.0			29.94	47.0	1.6+
5 6 7 8 9 10	34·2 35·0 48·0 50·8	69·0 70·0 72·0	30·02 30·00		29.98	68.0	29.95	50.0	1.0 +
6 7 8 9 10	35·0 48·0 50·8	$\begin{array}{c} 70.0 \\ 72.0 \end{array}$	30.00	61.0	29.86	69.0	29.99	50.0	1.5+
7 8 9 10	50.8			61.0	30.01	70.0	29.97	51.0	2.2 +
8 9 10		68:0	30.00	56.0	29.96	72.0	29.89	54.0	1.5+
10	51.4		29.81	62.0	29.70	68.0	29.65	55.0	1.0+
		68.0	29.58	60.0	29.50	68.0	29.44	55.0	3.4+
11	48.0	48.0	29.48	52.0	29.52	48.0	29.62	48.0	3.5+
	46.0	70.0	29.78	58.0	29.82	70.0	29.82	48.0	6.9+
12	46.0	68.0	29.80	64.0	29.78	68.0	29.66	52.0	2.3+
13	42.4	78.0	29.74	60.0	29.76	72.0	29.80	60.0	0.5+
14	52.0	78.0	29.70	65.0	29.71	72.0	29.72	62.0	1.5+
15	50.0	68.0	29.80	66.0	29.76	70.0	29.68	52.0	2.7 *
16	43.6	69.0	29.82	60.0	29.68	70.0	29.72	58.0	7.0 *
17	48.5	70.0	29.72	62.0	29.68	70.0	29.61	52.0	2.0 *
18	52.0	61.0	29.69	60.0	29.70	60.0	29.73	60.0	0.7 *
19	48.6	67:0	29.86	63.0	29.89	65.0	29.91.	54.0	5.0 *
20	48.0	72:0	30.00	60.0	29:98	70:0	29:96	61.0	36.0 *
21	49.5	76.0	30:04	54.0	30:02	76:0	30.00	60.0	2.1+
22 23	52.0	66:0	30.02		30.02	66.0	30:02	58.0	16.0 +
23	50·5 51·7	70.0	30·05 29·94	60.0	29.98	70.0	29:94	60.0	13:0 +
24 25	54.0	62.0	29 94 29 82	61·0 62·0	29.91	68.0	29.86	62:0	6.0 +
26	46.7	55.0	29.82	54.0	29.82	62:0	29 83	55.0	3:0+
27	44.0	58.0	30.06	50.0	29·87 30·06	55·0 58·0	29·96 30·07	50·0 48·0	4.6+
28	45.0	51.0	30.06	56.0	29.98	70.0	29.86	58.0	1:0 *
29	44.0	75.0	29.75	65.0	29 98	75.0	29.58	58.0	3.0 +
30	52.0	62.0	29.60	58.0	29.64	62.0	29 58	20.0	5.0 +
31	42.0	45.0	29.70	43.0	29 80	45.0	29 08	45.0	2.0 +

 $\begin{tabular}{ll} \textbf{Notes.} \begin{tabular}{ll} \textbf{Barometer temperatures taken from atmosphere in ordinary way.} & \textbf{Total fall 18.2.} \\ \textbf{Barometer readings taken with an aueroid barometer.} \end{tabular}$

^{*} Rise. † Fall.

METEOROLOGICAL RECORD for the Month of August, 1888.

D	Min. Tempera-	1 20 - 24	· Barometer Readings.							
Day. 1	ture.	1.50 P.M.	7.30 а.м.	Tempera- ture.	1.30 р.м.	Tempera- ture.	Evening.	Tempera- ture.	Ch.	
	٥	0	in.	0	in.	0	in.	0	in.	
1	33.2	64.0	29.98	48.0	29.98	64.0	29.97	49.0	0.0	
2	36.3	68.0	29.97	52.0	29.91	68.0	29.82	48.0	0.5*	
3	34.0	70.0	29.80	58.0	29.66	70.0	29.62	56.0	3.7+	
4	50.0	68.0	29.71	59.0	29.80	68.0	29.87	52.0	2.1+	
5	49.0	76.0	29.90	51.0	29.85	76.0	29.82	55.0	0.6+	
6	39.5	66.0	29.76	52.0	29.71	66.0	29.80	51.0	1.5 *	
7	49.0	58.0	29.99	50.0	30.05	58.0	30.00	50.0	1.7+	
8	36.0	60.0	29.95	44.0	29.80	60.0	29.75	50.0	0.6+	
9	47.5	56.0	29.50	50.0	29.54	56.0	29.56	52.0	0.0	
10	50.0	52.0	29.78	50:0	29.96	52.0	30.04	55.0	0.0	
11	32·7 45·0	66.0 69.0	30·04 29·86	45.0 52.0	29·90 29·87	66.0 66.0	29·86 29·85	51·0 55·0	0.6+	
12 13	50.5	68.0	29 80	54.0	29.87	68.0	29.76	52.0	3.0+	
14	49.5	66.0	29.70	52.0	29.69	66.0	29.68	58.0	2.0+	
15	54.0	68.0	29.66	61.0	29.68	66.0	29.69	52.0	1.0+	
16	45.8	70.0	29.72	52.0	29.58	70.0	29.50	60.0	1.5+	
17	49.6	70.0	29.48	60.0	29:30	70.0	29.23	52.0	0.6+	
18	50.0	72.0	29.20	52.0	29.13	72.0	29.13	60.0	1.1+	
19	48.7	84.0	29.20	56.0	29.22	84.0	29:30	60.0	0.8+	
20	38.2	86.0	29.40	40 0	29.44	86.0	29:30	55.0	2.0+	
21	43.0	66.0	29.34	55.0	29.40	66.0	29.46	50.0	0.8+	
22	36.5	70.0	29.52	40.0	29.48	72.0	29.46	52.0	1.4+	
23	40.0	68.0	29.47	50.0	29.48	68.0	29.48	52 0	0.9+	
24	42.0	70.0	29 42	50.0	29.46	69.0	29.44	60.0	1.0+	
25	46.0	72.0	29.44	60.0	29.47	70.0	29.44	61.0	0.6+	
26	45.0	66.0	29:42	60.0	29:34	65.0	29.35	62:0	1:0+	
27	44:0	55.0	29:36	55.0	29.33	55.0	29.30	50.0	0.5 +	
28 29	46.5	68.0	29·24 29·52	48.0	29:30	66.0	29·36 29·59	50.0	0.5+	
30	$\frac{31.8}{32.7}$	68.0	29 52	40.0	29·60 29·45	68.0	29.50	45·0 52·0	1.0+	
31	$\frac{32}{37} \cdot 0$	68.0	29.56	52.0	29 45 29 56	66.0	29.50	52.0	1.0+	
Avera	ge 43.0	67:0	29:62	51.0	29.60	67.0	29.59	53.0	29.0+	

Notes.—Barometer temperatures taken from atmosphere in ordinary way. Barometer readings taken with an aneroid barometer.

^{*} Rise. † Fall.

METEOROLOGICAL RECORD for the Month of September, 1888.

Day.	Min. Tempera- ture.	Barometer, 7.30 A.M.	Tempera- ture.	Barometer, 1.30 p.m.	Tempera-	Barometer, Evening.	Tempera- ture.	Water Ch.
	0	in.	0	in.	0	in.	0	in.
1	41.5	29:30	45.0	29.36	68:0	29.40	56.0	0.0
2	46.0	29.53	68.0	29 67	66.0	29.60	50.0	1.0+
3	42.0	29.54	55.0	29.56	68.0	29.46	55.0	0 0
4	47.0	29 23	60.0	29 15	68.5	29.05	56.0	1.0+
5	51.0	29.00	53.0	28.97	67.0	29.04	55.0	0.5+
6	47.6	29.10	48.0	29.14	62.0	29.21	52.0	0.6+
7	51.0	29.25	54.0	29.26	62.0	29.27	50.0	0.5+
8	52.0	29:30	53.0	29.32	61.0	29.32	50.0	0.7+
9	49.0	29:40	52·0	29.42	60.0	29 40	50.0	0.6+
10	48.0	29.52	50.0	29.42	55.0	29:30	50.0	1.0+
11	47.0	29.10		29.01	56.0	28.96	54.0	0.6+
12	47.0	29.00	48.0	29.03	61.0	28.97	52.0	0.7+
. 13	48.0	29.06	49.0	29.08	64.0	29.11	52.0	0.8+
14	37 · 7	29.17	42.0	29.20	65.0	29.22	51.0	0.5+
15	44.0	29.16	49.0	29.10	70.0	29.01	56.0	
16	56.0	28.98	62.0	28.95	78.0	28.92	55.0	
17	51.5	28.79	54.0	28.81	72.0	28.29	62.0	
18	52.0	28.87	56.0	29.94	60.0	29.16	50.0	
19	37.0	29.28	38.0	29.19	62.0	29.05	55.0	
20	44.0	28.88	50.0	28 87	66.0	28.87	56.0	
21	51.0	28.91	52.0	28.94	62.0	29.02	50.0	
22	38.0	29.10	42.0	29.25	58.0	29.31	45.0	
23	35.0	29.35	40.0	29.50	48.0	29.65	46.0	
24	33.3	29.59	33.3			29.31	50.0	0.7+
25	42.5	29.42	44.0	29.61	48.0	29.60	44.0	0.5+
26	30.8	29.62	40.0	29.63	54.0	29.60	40.0	0.8+
27	29.2	29.54	40.0	29.61	52.0	29.66	40.0	0.5+
28	35.0	29.76	44.0	29.66	50.0	29.61	46.0	
29	40.0	29 16	43.0	28.96	54.0	28.90	50.0	
30	37.0	29 28	40.0	29 46	52.0	29.45	37.0	
Aver	age 43.7	29.24	46.8	29.28	61.0	29 · 22	50.5	11.0+

Notes.—Barometer temperatures taken from atmosphere in ordinary way. September 16th, temperature of lake water, 53·5°. September 30th, temperature of lake water, 48·2°. Barometer readings taken with an eroid barometer.

[†] Fall.

METEOROLOGICAL RECORD for the Month of October, 1888.

Day.	Min. Tempera- ture.	Barometer, 7.30 A.M.	Tempera- ture.	Barometer, 1.30 P.M.	Tempera- ture.	Barometer, Evening.	Tempera- ture.	Water Ch.
	o	in.	0	in.	0	in.	0	in.
1	37.0	29.23	42.0	28.99	54.0	28.98	44.0	
2	38.0	29.00	38.0	29.20	56.0	29.22	45.0	
3	37.5	29.18	40.0	29.17	52.0	29.15	45.0	
4	43.0	29.16	45.0	29.14	50.0	29 00	40.0	
5	36.3	28 · 97	40.0	29.00	56.0	29.02	50.0	
6	39.0	29.00	42.0	28.95	62.0	28.90	50.0	
7	41.0	28.88	60.0	28.84	64.0	28.82	47.0	
8	40.0	28.88	43.0		40.0	29:00	45.0	2.0+
9	33·0 39·0	29:06	44:0	29·09 29·26	42.0	29·18 29·34	40.0	0.54
10 11	33.0	29·24 29·34	40·0 38·0	29 26	38.0	29 34	37.0	0.5+ 0.2+
12	32.3	29.36	33.0	29.37	39.0	29.34	34.0	0 2 7
13	31.6	29.29	33.0	29.28	45.0	29.26	38.0	
14	32.0	29 24	34.0	29 22	35.0	29:34	30.0	
15	23.0	29.44	26.0	29.52	34.0	29.50	30.0	
16	26.5	29.51	28.0	29.41	35.0	29.26	51.0	
17	27.0	29.16	28.0	29.16	33.0	29 · 20	30.0	
18	27.0	29.36	27.0	29.42	32.0	29 · 42	30.0	
19 20	$\frac{25.0}{31.5}$	29·14 28·88	26·0 32·0	29.06	34.0	28.98	30.0	
	•1 9	20 00	32 0	28.996	36.0	29.024	34.0	
21	20.8	29.020	47.0	28 992	39.0	28.880	37.0	
22	27.0	28.882	58.0	28 846	41.0	28 848	27:0	
23	24.6	28.796	51.0	28.828	32.0	28.858	33.0	
24	30.8	28.838	52.0	28.866	35.0	28.828	33.0	
25	27.0	28.768	51:0	28.812	35.0	28.842	35.0	
26	27:0	28.914	51:0	29.056	37:0	29.192	27.0	
27 28	36·0 31·0	$29.170 \\ 28.760$	51·0 53·0	$29.144 \\ 29.064$	31.5	$28.982 \\ 29.194$	33.0	
28 29	$\begin{array}{c} 31 \ 0 \\ 24 \ 5 \end{array}$	28.760	57.0	29 064	33.0	29 194 29 021	32.0	
30	30.0	28.950	51.0	29 120	31.0	29 182	30.0	
31	28.9	29 108	50.0	29.032	31.0	28.954	31.0	
Aver	age 31.6	29.088	42:0	29.111	40.4	29.099	36.7	2.7+

Notes.—Barometer temperatures taken from atmosphere in ordinary way.

Temperature of river water on the 7th inst., 51°; on the 4th, 43°; and on the 17th, 38°.

All below the line were got from Rev. Mr. Reeve at Chipewyan.

Barometer readings taken with an aneroid barometer.

^{*} Rise.

REPORT

OF THE

POSTMASTER GENERAL

FOR THE

YEAR ENDED 30th JUNE,

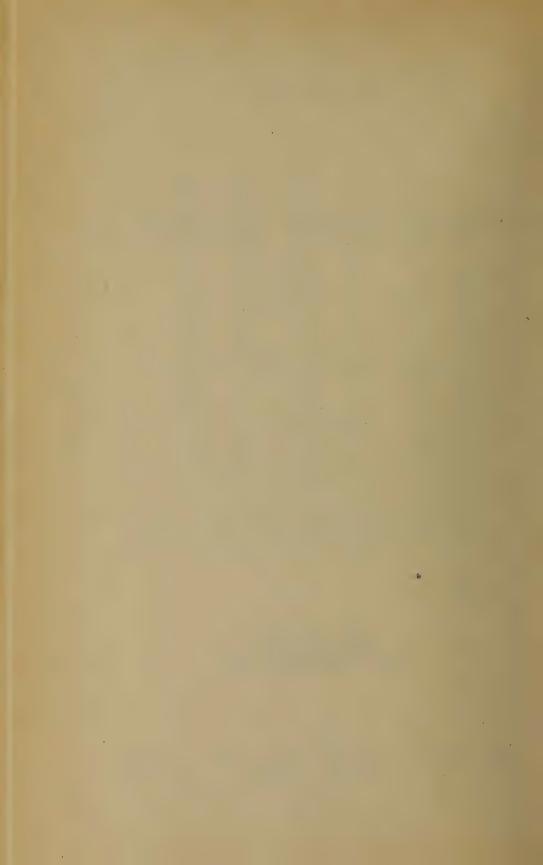
1889.

PRINTED BY ORDER OF PARLIAMENT.



OTTAWA:
PRINTED BY BROWN CHAMBERLIN, PRINTER TO THE QUEEN'S MOST EXCELLENT MAJESTY.

1890.



To His Excellency the Right Honourable The Lord Stanley of Preston, Governor . General of Canada, &c., &c.

MAY IT PLEASE YOUR EXCELLENCY:

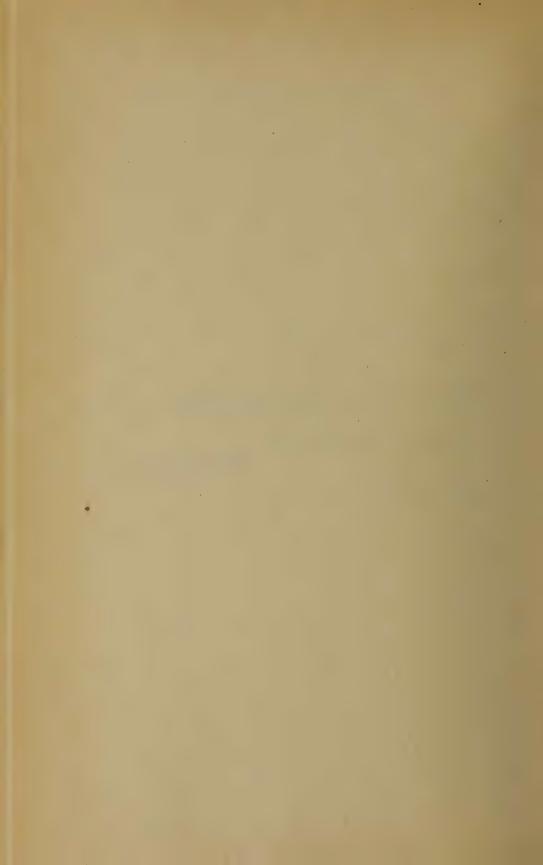
The undersigned has the honor to present to Your Excellency the Report of the Canada Post Office for the Fiscal Year ended the 30th June, 1889.

All of which is respectfully submitted.

JOHN HAGGART,

Postmaster-General

OTTAWA, 10th January, 1890.



SCHEDULE.

Accompanying this Report are the following Documents therein referred to:-

1 0 0							
	Ontario.	Quebec.	Nova Scotia.	New Brunswick.	Manitoba and N. W. Territories.	British Columbia	Prince Edward Island.
	Page.	Page.	Page.	Page.	Page.	Page.	Page.
Post Office Revenue and Expenditure of the Dominion, for the year ended 30th June, 1889. See page 1.							
Post Office Revenue and Expenditure for the several Provinces of the Dominion during same period	2	3	4	5	6	7	8
Mail Subsidies, &c., paid through Post Office Department. See page 9.							
Detail of all payments made and charges incurred for ordinary mail transportation during the year ended 30th June, 1889	11	49	72	90	104	113	117
Charges for conveyance of mails by water during same period	46	69	87	101		115	121
Charges for conveyance of mails by railway during same period	47	70	88	102	111	116	121
Charges for making and repairing mail bags during same period.	48	71	89	103	112	116	121
Salaries in Post Office Inspectors' Offices (including Railway Mail Service)	122	145	157	161	166	170	172
Salaries in City Post Offices organized by Department	131	150	159	163	167	170	172
Account of travelling expenses incurred in the service of the Post Office Department for the said year	173	174	175	175	176	176	177
Account of sums paid in discharge of Tradesmen's Bills, for articles supplied for the service of the Post Office Department for the said year	178	181	183	184	185	186	187
Account of sums paid for Rents and Taxes on account of the Post Office Department for the said year	188	188				188	
Report, in detail, of the expenditure of the Department for Stationery, Printing and Advertising for the said year	189	191	192	193	194	195	195
Account of sums paid for miscellaneous disbursements on account of the Post Office Department for the said year	196	199	201	202	203	204	205
Showing the Money Order Offices in operation, the number and amount of orders issued and paid the commission thereon; gross postal revenue; and compensation, salary and allowances paid, to the Postmaster at each office, respectively, during year ended 30th June, 1889 15—B	206	219	224	228	231	233	234

SCHEDULE—Concluded.

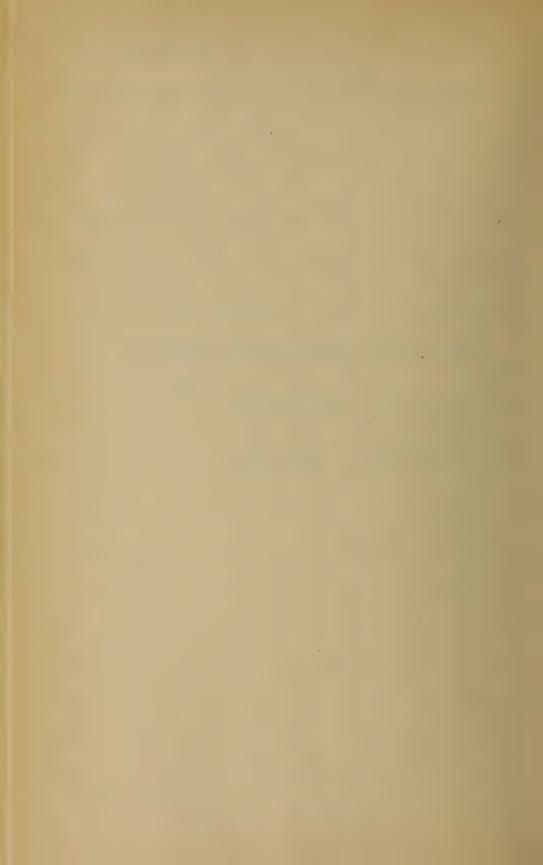
	Page
Statement of Post Office Savings Bank transactions during year ended 30th June, 1889, and of total amount due to depositors at the latter date	235
Analysis of the Money Order business of the Dominion for year ended 30th June, 1889	236
Statement showing losses sustained in collecting Post Office Revenue and conducting Money Order and Savings Bank systems in Dominion of Canada brought to account during year ended 30th June, 1889	ı.
Report of all cases occurring within the year ended 30th June, 1889, of abstraction from, or loss of, letters containing money, sent through the Post Office in Canada; showing the particulars of each case, and stating the result of the proceedings instituted therein by the Department	
Recapitulation	270
Statement of Dead Letters:— Table I, showing the total numbers of letters of all kinds received, and the disposition made of them Table II, showing the number of letters received containing money or other articles of value, and the disposition made of them	272

ERRATA IN DETAILS OF MONEY ORDER COMMISSIONS.

Page 218, add Kingston, 10c., making \$44,294.09.

Page 227, add Halifax, \$100, making \$13,046.42.

Page 223, add East Selkirk, 9c., making \$4,298.21.



Post Office Department, Ottawa, 2nd January, 1890.

To the Honorable John Haggart, Postmaster General.

SIR,—In submitting the usual Returns of the business of the Post Office in Canada during the year ended 30th June, 1889, I have the honor to report that the increase in the number of Post Offices in the Dominion was 167—the total number now in operation being 7,838—as against 7,671 last year.

571 miles have been added to the mail routes and the annual travel now amounts to 25,756,678 miles.

The mails conveyed between Canada, Japan and China are steadily increasing in importance, and it is evident that the advantages of this route to Europe via. Canada are becoming more generally known and appreciated. A mail recently received at Vancouver contained upwards of 4,000 letters from all parts of China and Japan for Europe, besides a large number for Canada and the United States.

The Post Office Act of last Session increased the limit of weight of a single rate letter from half an ounce to an ounce. The rate upon Drop letters was at the same time fixed at 2 cents per ounce. The rates upon Miscellaneous matter were also readjusted, in order to secure uniformity and to remove certain anomalies which previously existed. The charge for the registration of a letter, parcel, book or other articles of mail matter was also made uniform, and fixed at 5 cents for all classes of matter. The frequent delay consequent upon the prepayment of a wrong registration fee will no longer take place.

Through the courtesy of the Imperial Post Office an arrangement has been made by which parcels may now be received from, or forwarded (via England) to all countries with which the United Kingdom has established a Parcel Post. The steady increase in the number of parcels received and sent shows that the facilities afforded by the Parcel Post System are becoming more generally known and more largely availed of.

Negociations are in progress for an exchange of Parcels between Canada and Japan and between Canada and the Leeward Islands.

The following tables show the operations of the Department during the period covered by the statements.

TABLE showing the Number of Post Offices, Extent of Mail Travel, Number of Letters and Newspapers, &c., in the Dominion of Canada, for the Year ended 30th June, 1889.

		Extent of I	Extent of Mail Service.	Estim	ated Number	of Letters,	Post Card	Estimated Number of Letters, Post Cards, Newspapers, &c., sent by Post in 1889	s, &c., sent b	y Post in 18	889.
Provinces and Territories.	November 1889. Number of Post Offices.	1889. Number of Miles of Post Route.	1889. ———————————————————————————————————	Letters.	Post Cards, tered Letters.	Regis- tered Let- ters.	Free Letters.	Newspapers and Periodicals. Number Posted otherwise than from Office of Publication.	Number of Books, Circulars, Samples and Patterns and other Mis- cellaneous Articles.	Number of Parcels by Parcel Post.	Number of Closed Parcels free United Kingdom.
Ontario	2,971	18,589	12,040,459	49,887,000	12,671,000	2,084,000	2,908,000	6,121,000	11,137,000	. 288,000	8,500
vii	1,423	11,799	5,433,443	22,437,000	3,811,000	824,000	437,000	4,136,000	4,553,000	122,000	1,300
Nova Scotia	1,399	8,567	3,112,295	6,721,000	1,266,000	198,000	146,000	702,000	486,000	21,000	2,400
New Brunswick	1,085	5,317	2,193,156	5,173,000	813,000	146,000	127,000	530,000	318,000	30,000	006
Prince Edward Island	315	1,291	513,285	1,114,000	143,000	37,000	29,000	106,000	83,000	5,000	200
British Columbia	144	4,870	797,814	2,126,000	131,000	65,000	76,000	191,000	123,000	9,000	006
Manitoba	346	6,402	1,666,226	5,210,000	520,000	295,000	149,000	483,000	353,000	29,000	1,200
Total	7,838	56,835	25,756,678	92,668,000	19,355,000 3,649,000		3,872,000	12,269,000	17,053,000	504,000	15,400

Railway Mail Service has been established on the line of the Canadian Pacific Railway between Agnes, in the Province of Quebec, and Mattawamkeag, in the State of Maine, a distance of 160 miles, thus forming a direct connection between the Eastern Townships of Quebec and the Province of New Brunswick, and largely diminishing the time required for the transmission of correspondence between Montreal and the Western portions of the Dominion and St. John and Halifax.

A Mail Service by Railway has also been established between Chatham, New Brunswick, and Fredericton, by the Northern and Western Railway, thus affording the means of direct postal intercourse between the Northern Counties of New Brunswick and the Capital of the Province.

Additional service has also been given over several small sections of existing railways, making a total of 355½ additional miles of Railway Mail Service.

Mails are now carried over 11,5101 miles of Railway in Canada.

STATEMENT of distance travelled daily with Mails, on each Railway in Canada, in October, 1889.

Name of Railway.	Actual length of Railway in Miles.		ice by Tra- ost Office. Distance Travelled in Miles.	Daily Service by Bags in charge of Company's Servants. Distance in Miles.
Intercolonial	$\begin{array}{c} 922 \\ 116 \\ 67 \\ 32 \\ 208\frac{1}{9} \\ 36 \\ 48 \\ 27 \\ 82\frac{1}{9} \\ 312\frac{1}{4} \\ 27 \\ 9 \\ 108 \\ 65 \\ 177 \\ 2,915\frac{1}{3} \\ 138 \\ 65,7\frac{1}{10} \\ 650\frac{1}{2} \\ 650\frac{1}{2} \\ 650\frac{1}{2} \\ 620\frac{1}{2} \\ 64 \\ 28 \\ 4 \\ 104 \\ 28 \\ 4 \\ 104 \\ 361\frac{1}{2} \\ 67 \\ 206 \\ 109 \\ 78 \\ \end{array}$	2 25 9 4 1 1 1 2 2 2 3 1 1 1	3,120 260 134 234½ 96 562 562 354 7,199 286 76 140 5,04½ 3,074½ 1,284 156 127 208 112 208 630¾ 114 149½ 156	905 142 64 $460\frac{2}{5}$ 72 54 165 $856\frac{1}{2}$ 54 54 54 130 $7,824\frac{1}{2}$ 234 130 $2,856\frac{1}{4}$ $64\frac{1}{4}$ $25\frac{1}{4}$ 16 420 16 61 32 30 $333\frac{1}{4}$ 72 $22\frac{3}{4}$ 218
	$11,510\frac{1}{2}$	121	$23,742\frac{9}{20}$	15,369

RAILWAY MAIL SERVICE.

Since the Return of last year, for October, 1888, Mail Service has been put on 355½ miles of additional Railway Lines, as follows:—

Name of Railway.	Places between which Railways have been opened since October, 1888.	Miles.	Total.
Grand Trunk	Fredericton, N.B., and Chatham Junction, N.B Ste. Martine Junction, Que., and Valleyfield, Que. Simcoe, Ont., and Port Rowan, Ont. Cookshire, Que., and Sawyerville, Que. Agnes, Que., and Mattawamkeag, Maine. Glenannan, Ont., and Wingham, Ont. Leamington, Ont., and Comber, Ont. Langenburg and Saltcoats	$egin{array}{c} 17rac{1}{3} \ \ 160 \ 4rac{1}{2} \ 13rac{1}{3} \ \end{array}$	$ \begin{array}{r} 36\frac{1}{3} \\ 6\frac{1}{70} \\ \hline 164\frac{1}{2} \\ 28\frac{4}{5} \\ 26 \\ \hline 355\frac{1}{8} \end{array} $

Comparative Statement of Railway Mail Service in October, 1889, and October, 1888.

Date.	Miles of Railway in operation	Daily Se Postal		Daily Service by Bags in		tal Travelled.
Dave.	on which Mails are carried.	No. of Postal Cars on Railways.	Distance Travelled. Miles.	charge of Company's Servants.	Daily.	Yearly.
In October, 1889 In October, 1888	$ \begin{array}{r} 11,510\frac{1}{2} \\ 11,251\frac{3}{4} \\ \hline 258\frac{3}{4} \end{array} $	121 120 1	$ \begin{array}{r} 23,742\frac{9}{20} \\ 22,924\frac{7}{10} \\ \hline 817\frac{3}{4} \end{array} $	$ \begin{array}{r} 15,369 \\ 13,919 \\ \hline 1,449 \\ 2 \end{array} $	$ \begin{array}{r} 39,111\frac{9}{20} \\ 36,844\frac{3}{10} \\ \hline 2,267\frac{3}{20} \end{array} $	$\frac{12,241,883\frac{17}{20}}{11,532,265\frac{9}{10}} \\ \overline{709,617\frac{19}{20}}$

A considerable reduction has taken place in the weekly average of Letters and Newspapers delivered by Letter Carriers under the Free Delivery System, owing no doubt to the increase in the rate of postage upon Drop or City letters and the attempts made to establish private deliveries. The illegal character of these private deliveries having been pointed out to the parties engaged therein, they have, it is belived, been entirely discontinued; and the Free Delivery by Letter Carriers will no doubt now return to its normal condition.

FREE DELIVERY BY LETTER CARRIERS.

ESTIMATE of the Weekly Averages of Letters and Papers delivered by Letter Carriers, under the Free Delivery System, taken in October, 1889.

Office.	City Letters.	Registered Letters.	Other Letters.	Total Letters.	News-papers.	Total Letters and Newspa- pers.	Number Employed in Actual Delivery.	Total Number Employed, including Superintendents and Sorters.
Halifax	5,880	204	11,558	17,642	9,409	27,051	13	16
Hamilton	9,919	599	24,570	35,088	16,122	51,210	30	32
Kingston	6,042	279	9,696	16,017	7,669	23,686	8	9
London	4,157	583	21,452	26,192	10,247	36,439 '	20	24
Montreal, including Hochelaga, Point St. Charles, St. Jean Baptiste and St. Gabriel.	42,582	2,327	60,958	105,867	39,214	145,081	61	72
Ottawa	11,776	671	17,762	30,209	19,573	49,782	24	26
Quebec and St. Sauveur	11,969	882	25,615	38,466	16,775	55,241	19	21
St. John	3,058	192	14,612	17,862	9,391	27,253	13	15
Toronto	94,770	6,346	162,464	263,580	66,315	329,895	74	88
Victoria	639	28	2,832	3,499	2,461	5,960	4	4
Winnipeg	3,554	227	9,303	13,084	8,879	21,963	13	16
Totals	194,346	12,338	360,822	567,506	206,055	773,561	279	323
Totals in 1888	211,156	14,512	355,981	581,649	212,855	794,504	289	336
Increase			4,841					
Decrease	16,810	2,174		14,143	6,800	20,943	10	13

Upon the above Averages the Total Annual Delivery would be :-

	Letters.	Newspapers.	Total Letters and Newspapers.
In 1889	29,510,312 30,245,748	10,714,860 11,068,460	40,225,172 41,314,208
Decrease in 1889.	735,436	353,600	1,089,036

In the Statement of Receipts and Issue of Postage Stamps, &c., it will be observed that the Stamps on hand at the close of the last year very largely exceeded the number carried over from the previous year. It was thought prudent to carry a much larger stock than usual, owing to the removal of the establishment of The British American Bank Note Co. from Montreal to Ottawa and the probable delay in procuring stamps during such removal.

Owing to the change in the System of accounts which went into operation on 1st July, 1888, the issue of Postage Stamps, Cards, &c., can no longer be given by Provinces. The total value of the issue for the year ended 30th June, 1889, was \$2,973,507, that for the previous year was \$2,728,026—showing an increase for the present year of \$245,481.

STATEMENT of Receipts and Issue of Postage Stamps, Post Bands, Post Cards and Stamped Envelopes, for the Year ended 30th June, 1889.

RECEIPTS.

Received from manuof transacmasters fit for use tions of the year. by Pounfit f Amount Surplus on DENOMINATIONS. to be accounted for. \$ cts. 200 135,800 475,000 2,234 613,234 3,066 17 3,060 17 462,555 27 88,814 70 2,096,799 78 138,852 75 87,430 80 37,623 20 62,900 46,255,527 do 5,851,000 40,300,000 41,627 26,100 117,8004,440,735 69,893,326 1,348,600 11,627,000 16,035 3,050,000 do 58,100,000 48,326 200 do 7,950 2,777,055 1,457,180 376,232509,300 do 2,250,000 9,805 652,200 275,650 do 800,000 1,730 3,250 100,000 100 1.0 482 do 607,150 137,750 1,135,850 607,638 138,060 75,954 75 488 do 20,709 00 61,080 26 do 310 $1,862,500 \\ 662,500$ do Registered..... 24,313 31,350 3,054,013 36,077 20 7,495 982 188,732 82 1,823 98 41,750 12,644 4,650 721,544 599,679 do do Post Bands 1,500 77,658 108,700 485,000 4,479 1 do Envelopes 24,542 2,215,082 16,556,000 18,873,282 2,206 1,738 2,927 2,694 91,199 23,896 56,746 61,000 4,097 2,428 62 2,561 $63\frac{7}{10}$ 2,447 121,431 60,500 197,049 123,232 30,058 160,000 4,064 do No. 1 Envelopes.... do No. 2 do 3,420 $4,066 65\frac{3}{5}$ $5,107 91\frac{1}{4}$ 97,500 118,000 19,618

1,123

197,703

200

1,900

349,386

152,475

 $3,321,181 \ 49\frac{3}{10}$

150,492,891

31,452

125,138,000

24,807,602

STATEMENT of Receipts and Issue of Postage Stamps, &c.—Concluded.

ISSUE.

DENOMINATIONS.	Issued to Post- masters during the year.	Suspense items.	Stamps destroyed as unfit for use.	Stamps on hand 30th June, 1889.	Total number of stamps, &c., thus accounted for.	Amount accounted for.
1 do	535,700 40,873,600 4,199,200 65,816,600 2,600,700 894,600 235,650 100,350 2,808,400 514,700 530,400 18,062,100 54,500 103,900 147,000 99,300 112,600	100	2,234 41,627 16,035 48,326 9,805 1,730 482 488 310 24,313 12,644 39,479 24,542 2,206 1,738 2,927 2,694 1,123	75,300 5,340,300 225,400 4,028,400 166,550 560,850 140,100 607,150 37,400 221,300 194,200 786,640 34,493 15,793 47,122 21,238 38,752	613,234 46,255,527 4,440,735 69,893,326 2,777,055 1,457,180 376,232 607,638 138,060 3,054,013 721,544 599,679 18,873,282 91,199 121,431 197,049 123,232 152,475	

Value of the issue during the year, to 30th June, 1889 (which cannot be now given in Provinces), \$2,973,507.

The total stamp issue of the previous year was \$2,728,026, showing a comparative increase in issue for the present year of \$245,481.

The increase in the amount of the registration fee from 2 cents to 5 cents authorized by the Post Office Act of 1889 has been followed by the introduction of the improved system of registration, or rather of the treatment of registered correspondence, framed in strict accordance with the instructions given by yourself, admirably detailed in the accompanying memo from Mr. M. Sweetman, Chief Post Office Inspector:—

Post Office Department, Canada. Chief P. O. Inspector's Office Ottawa, 2nd Nov., 1889.

Memo, for Postmaster General:-

In accordance with your instructions, I beg, very respectfully, to submit the following statement in reference to the working of the hand-to-hand delivery of Registered Mail Matter, and other improvements recently introduced.

The new system was entered upon on the 1st of August last, and since that date all Registered Matter, passing from one office to another, via Railway, has been forwarded in charge of the Railway Mail Clerks. No Registered Matter is now included in through Mails despatched in charge of Train Baggagemen, as formerly, except in a few unimportant cases on railways where Postal Cars are not in use.

The Railway Mail Clerks are required to commence and end their trips, not at the Railway Station, but at the Post Offices, at either end of their routes. Before leaving the Post Office, at the commencement of a trip, they check the Registered Articles entered on the Letter Bill, with the addresses on the Registered Articles which they receive for despatch by their routes. For this Registered Matter they give a receipt to the Despatching Postmaster, in a book which is kept for the purpose, and it is the duty of the Railway Mail Clerks to enclose the Registered Matter in a special bag provided for the purpose, for the safety of which they are held personally responsible.

Wherever practicable, whether at Junction Stations or at Crossing Stations, the Railway Mail Clerks make a personal transfer of the Registered Matter passing from one Postal Car route to another. In some cases, however, owing to close connections, and lack of time, a personal transfer is impracticable; but in such instances the bags containing Registered Matter are accompanied by "Transfer Bills," which are signed by the Despatching Clerk, the person making the transfer, and the Receiving Clerk. It is also required, in these cases, that, where more than one Railway Mail Clerk is on duty, the closing and opening of Registered Bags shall be witnessed by two Clerks.

The Railway Mail Clerks accompany their Mails to the Post Offices at the end

of their trips, and obtain receipts for the Registered Matter they deliver.

There is no personal transfer of Registered Mail Matter at the way or Intermediate Stations on a Postal Car route, as that would entail a large additional expenditure, out of all proportion to the general results which would be secured thereby. It is not anticipated, however, that any special difficulty will arise in this connection. I may add that the personal transfers, already arranged for, include all the more important points and places.

The advantages of the new Registered Letter System may be summed up as

follows, viz.:-

1st.—It affords increased security to the Registered Mail Matter, in transit, by concentrating the valuable portion of the Mails, and thus enabling those whose duty it is to handle it to keep closer watch and guard over it than was practicable when it was placed in several separate bags for Post Offices and Postal Cars. The new method already indicates that increased care and attention are bestowed upon the treatment of Registered Mail Matter.

2nd.—In the event of a loss, at one of the more important points, there will be little room for doubt in respect to where the responsibility lies: if the person who last receipted for it is unable to show how it was disposed of, he becomes liable for the loss. It is confidently expected that the number of losses of Registered Articles

will be largely reduced in the future.

I may further add that with the introduction of the new system for the treatment of Registered Matter opportunity has been taken to make general the following additional plans for giving increased security to ordinary Letter Matter, and for expediting the opening and sortation thereof. Instead of making up separate bags for the several principal offices on a given line of Railway, in which all the Mail Matter therefor is enclosed, the separate bag system, as far as possible, has been abandoned, and the letters for each office are now tied up in face-slipped

The general result of the new method is that an intermediate office now receives from the Railway Mail Clerk one Letter Bag, containing Registered and Ordinary Letters, and a separate sack, or sacks, containing Newspapers and printed Matter,—instead of several bags, made up at various offices, each bag containing Registered and Ordinary Letters, and Newspaper Matter. This not only affords increased security to Registered and Ordinary Letters; but it also largely reduces the number of bags, locks and labels, which have hitherto been required, and lessens the work, and shortens the time, in closing or making up the out-going Mails. The advantages in this connection are as follows:—

1st.—It enables City Postmasters to apportion the work of distribution in such a manner as to secure the handling of the Registered Matter, Ordinary Letters, and

Newspapers, each in its own particular branch or section of the Office.

packages and placed in the bags sent to the Railway Mail Clerks.

2nd.—It facilitates the sortation, and delivery, in large offices, by enabling the clerks to enter upon the distribution of the Mail Matter immediately on receipt of the Mails, without waiting, as formerly, for the opening and emptying of a large number of Mail Bags, and the somewhat tedious process of separating the several classes of Mail Matter.

3rd.—The outgoing Mails can be closed more rapidly, and more time can be

afforded to the public for posting letters.

4th.—It reduces, to a considerable extent, the liability to commit errors in the

closing or making up of mails.

With respect to the new method for the treatment of Registered Matter, the only disadvantage is in the shape of delay on lines of railway over which Mails are conveyed, each way, twice daily—once in the Postal Cars, and again in the Baggage Car—affording only one despatch for Registered Matter, instead of two despatches as formerly—consequent upon sending Registered Matter by the Postal Cars only. As set forth in a former Report, there are some offices, Registered Matter for which will necessarily be delayed from twelve to twenty-four hours, by being held over for despatch by Postal Cars. These detentions occur, chiefly, in Western Ontario, say from Toronto westward; but, so far as I am aware, no complaints have been received from the public. It is probable that, in such instances, Registered Matter is now being posted at hours convenient for despatch by the Postal Car trains.

The time is not far off when the question is likely to be presented for consideration, whether double Postal Car services should not be introduced upon some of the railway lines west of Toronto—not on account of the Registered Matter alone—but in view of the increase in al! classes of Mail Matter which cannot be so satisfactorily provided for by the despatch of through bags, between the principal offices, in the charge of baggagemen.

In response to a circular letter, recently issued to Post Office inspectors and City Postmasters, on the subject of the recent changes adverted to herein, most of the replies received are favorable, and while, in a few cases, the reports are less favorable, it is obvious that the arguments advanced generally, in respect of delay, are more

than met by the advantages pointed out by the majority.

The introduction of the changes above mentioned, affecting so large a number of Post Offices, and Postal Cars, will necessarily require careful watching, and perhaps more or less re-adjustment, in order to secure the measure of efficiency aimed at, within the shortest possible space of time. The use of uniform Registered Letter Package Envelopes of the best possible description, and of a special Registered Letter bag, all of which are now in course of preparation, will add materially to the safety of Registered Articles, and with the other plans introduced for the careful and systematic treatment of this valuable class of Mail Matter, will secure the most satisfactory results.

M. SWEETMAN, Chief Post Office Inspector.

The number of Registered Letters which passed through the mails of the Dominion during the year ended 30th June, 1889, is estimated at 3,649,000. The number of registered letters estimated to have passed by mail in Canada since 1882 is as follows:—

In	1883	2,659,000
	1884	
"	1885	3,000,000
	1886	
	1887	
	1888	
	1889	

During the year ended 30th June, 1889, there were 243 case of abstraction of contents or portions of contents from, or loss of registered letters containing money sent through the mails of the Dominion.

The contents (or portions thereof) in 62 of these cases were, after careful investigation into the circumstances of each case, made good by the officers held responsible for the loss; 66 letters were stolen whilst in the custody of the Post Office or from mails *en route*, the contents of which were not recovered.

In 32 cases the contents wholly, or in part, were alleged to be missing but no satisfactory evidence to account for the alleged discrepancy was obtainable; 21 letters were contained in mails or packages stated not to have been received at the offices for which they were intended; and 47 letters were accidentally destroyed during the course of post.

DEAD LETTERS.

893,298 letters, circulars, post cards &c., passed through and were dealt with in the Dead Letter Branch of the Canada Post Office during the year, as shown by the following classification.—

Dead Letters originating in Canada returned as undelivered by the British Post Office Dead Letters originating in Canada returned as undelivered by the United States Post Office Dead Letters originating in Canada returned as undelivered by Printiple Calabian and Province Countries.	9,194
livered by British Colonies and Foreign Countries	1,141
	109,179
Less,—Registered Letters included therein and transferred to registered class	2,270
	106,909
Dead Letters, circulars, post cards &c., returned from Canada Post Office	660,540
Dead Letters registered being found to contain value Letters, circulars, post cards, &c., sent to the Dead Letter Office for special reason, such as insufficient	16,347
address, non-payment of postage, &c	109,502
	893,298

From communications which have appeared in the Press during the past year there is reason to suppose that a good deal of misapprehension exists with respect to the treatment in the Department of Dead or Returned letters. It may, therefore, be as well to state that letters or packets which cannot be delivered to the person addressed are returned from every Post Office daily, weekly, or monthly, according to the importance of the office, to the Dead Letter Office, from which they are at once sent back to the writer.

No letters which have failed of delivery are destroyed which can be returned to the writers; and in cases where the contents are valuable, or the letter itself appears to be of importance, a record is kept and the letter retained for at least twelve months awaiting a claimant.

In addition to the foregoing, it may also be observed that what are termed "Request Letters," that is, letters passing within the Dominion sent in covers or envelopes having *printed* thereon a request from the sender that the letter, if not delivered or called for at the office addressed within a certain time specified in the request, may be returned to his address, as printed in the said request, are returned to the writer direct as requested.

PRINTING AND SUPPLY.

The operations of this branch of the Department have increased of late years to such magnitude that it is thought some details of the work performed may be of interest to the public. The following statements are submitted accordingly:

Summary of the cost of Printing, Stationery, Mail Bags, Dated Stamps, Scales and Weights, and Miscellaneous Articles, supplied to the Department at Ottawa, and to the different Provinces of the Dominion, through the Printing and Supply Branch, Post Office Department, from 1st July, 1888, to 30th June, 1889.

	\$.	ets.	\$	cts.
Printing, binding, &c Stationery			58,407	
Stationery. Mail bags, labels, &c.	9,659	08	14,695	46
do repairing		16	14.299	24
Mail locks, keys, lead seals, &c	$2,643 \\ 324$		22,200	
Street letter-boxes				00
Scales and weights Dated stamps, seals, stamping ink-pads, &c., &c.			1,808 6,234	
Material for letter-carriers' uniform. Making up do do	4,219	00		
Water-proof coats, capes, helmets, fur caps, &c				
Miscellaneous			$12,461 \\ 412$	1 90 2 2 9
Total			111,593	3 95

STATEMENT shewing the balance in Stock 30th June, 1888, the balance carried forward 30th June, 1889, and the number and value of Forms, Envelopes, Books, Labels, &c., and reams of Writing Paper obtained for and issued to the Postal Service generally through the Printing and Supply Branch, from 1st July, 1888, to 30th June, 1889.

	Forms.	Envelopes	Books.	Cards and Labels.	Writing Paper.	Value.
					Reams.	\$ ets.
Balance in stock, 30th June, 1888	2,130,720 12,299,399			239,219 $2,862,629$		10,708 04 58,407 64
Total	14,430,119	3,558,782	46,232	3,101,848	345	69,115 68
Issued to the Department at Ottawa do different Provinces	373,058 11,646,060		2,990 29,433	24,463 2,677,877	47 ³ / ₄ 96	3,746 93 51,836 65
Total Issue	12,019,118	2,161,721	32,423	2,702,340	1434	55,583 58
Obsolete articles, destroyed	141,123	71,678	897	744		976 02
Balance in stock, 30th June, 1889	2,269,878	1,325,383	12,912	398,764	2011	12,556 08

STATEMENT shewing the balance in stock, 30th June, 1888, the balance carried forward, 30th June, 1889, and the number and value of articles of Stationery obtained and issued to the Postal Service generally, through the Printing and Supply Branch, from 1st July, 1888, to 30th June, 1889.

VALUE.	\$ cts.	14,695 46	14,906 43	2,949 04	14,687 53	218 90
Miscellaneous.	127	10,167	10,294	4,457	10,205	89
Sealing wax and gum .(.edl) oidera	13	2,865	2,878	2,616	2,858	20
.(.sdl) əniwT	192}	12,959	13,1514	$542\frac{1}{2}$	$12,904\frac{1}{2}$	$246\frac{3}{4}$
Ink (bottles), mucilage (bottles), &c.	44	1,828	1,872	486	1,779	93
Pens (boxes), penholders, for pencils and leads for pencils (boxes).		13,814	13,814	1,945	13,814	
Tags, cards, labels, &c.		309,150	309,150	10,300	309,150	
Writing, blotting and wrapping paper (reams).	17	$1,134\frac{3}{4}$	1,1513	$\frac{132_{1\overline{2}}^{1}}{1,008_{\frac{3}{4}}^{2}}$	$1,140\frac{2}{6}$	1011
Envelopes and paper	1,675	107,024	108,699	38,875	107,199	1,500
Books, almanacs and	ت	1,444	1,449	400	1,445	4
	Balance in Stock, 30th June, 1888	Received from Stationery Office	Total	Issued to the Department at Ottawa	Total Issue	Balance in Stock, 30th June, 1889

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STATEMENT in detail, shewing the number and cost of Mail Bugs and Bug Labels, supplied through the Printing and Supply Branch, to the Department at Ottawa and to the different Provinces, from 1st July, 1888, to 30th June, 1889.

	and	1,678	s and	pu	MAIL I	Bags Re	PAIRED.	
	Leather mail bags a satchels.	Cotton duck mail bags and satchels.	Jute newspaper sacks and linen mail bags.	Reversible leather and other labels.	Leather.	Cotton duck and satchels.	Jute newspaper sacks.	VALUE.
								\$ cts.
Department at Ottawa		51						34 50
Ontario	62	2,241	3,373	2,857	4	1,908	4,000	7,325 44
Quebec	62	1,219	398	1,668	2	1,151	4,978	4,287 47
Nova Scotia	20	582	54	180	16	27	29	558 85
New Brunswick	11	461	99	741	8	24	11	. 643 21
Manitoba, &c		150	36	401	1	51	53	304 14
British Columbia		256		133		9		206 06
P. E. Island		62		100		58	51	107 94
Total	155	5,022	3,960	6,080	31	3,228	9,122	13,467 61

Mail bags and labels are not kept in stock (except 500 newspaper sacks for Montreal and 500 newspaper acks for Toronto to meet emergencies) but are ordered from the contractors direct, from time to time, as required.

STATEMENT shewing the quantity and value of Stamping Materials, Scales and Weights, &c., &c., in Stock, 30th June, 1888, and ordered and issued through the Printing and Supply Branch, from 1st July, 1888, to 30th June, 1889; also the quantity and value of the same on hand, 30th June, 1889.

	Dating, Rating and other Stamps.	WI	ing	Tins of Stamping Ink, &c.	Type for Dated Stamps.	Wooden and other Bag Labels.	Letter and Parcel Scales and Weights	Mail Locks, Keys, Lead Bag Seals, &c.	Street Letter Boxes, &c.	Miscellaneous.	Value.
Balance in Stock, 30th June, 1888 Received during the year Total Issued during the year Balance in Stock, 30th June, '89	$ \begin{array}{r} 1,985 \\ 2,884 \\ \hline 4,869 \\ 2,928 \\ \hline 1,941 \end{array} $	352 352	876	298 508 377	10,300 15,602 12,717	16,669 16,669 16,669	676	17,339 303,923 321,262 306,001 15,261	36 43 29	125 98	15,969 61 12,574 70

STATEMENT shewing the quantity and value of *Material*, &c., for Letter Carriers' Uniforms in Stock, 30th June, 1888, and ordered and issued through the Printing and Supply Branch, from 1st July, 1888, to 30th June, 1889; also the quantity and value of material remaining in Stock 30th June, 1889.

	Мат	ERIAL.	GARMENTS.			Buttons, ms and	oats	Summer &c.			
	Overcoat Cloth.	Cloth & Serge for Tunics and Trousers	Overcoats.	Tunics.	Trousers.	Brass Coat But Monograms a Numbers.	Waterproof Coand and Capes.	Cloth Caps, Sum Helmets, &c.	Leather and Rubber Boots & Moccasins	Miscellaneous.	Value.
											\$ ets.
Balance in Stock, 30th June, 1888	$30\frac{3}{4}$ $345\frac{3}{4}$	325 2,681		432	541	5,727 2,880	367 83	457 793		235 243	2,734 80 12,519 47
Total	376	3,006	144	432	541	8,607	452	1,250	714	578	15,254 27
Issued during the year	358	951	143	431	540	1,842	145	675	712	369	11,536 09
Balance	18	2,055	1	1	1	6,765	307	575	2	209	3,718 18
Sold	18	2,055				6,320	3				1,544 28
Balance in Stock, 30th June, 1889			1	1	1	463	304	575	2	209	2,173 90

REVENUE AND EXPENDITURE.

The gross Postal Revenue of the year ended 30th June, 1889, was, as shewn by the annexed statements, \$2,984,222,60, an increase of only \$27,621 over the gross revenue of last year; but, as stated in the report of last year, the changes made in the system of accounting last year make it very difficult to say how far the diminution of revenue for the year ended 30th June last is due to an actual falling off in the receipts for the year, and how much to forestalling of the revenue of this year by forcing collections at the close of the last financial year, which would otherwise have been included in the revenue of the year now under review.

The expenditure for the same period was \$3,746,040.42, leaving a deficiency of \$761,817, as compared with \$854,845 in 1887 and \$911,031 in 1886.

Of this expenditure, however, an amount of \$51,232,32 for transit rates on mail matter for and from Canada, passing through the United States for other countries, from 1st April, 1886, to 31st December, 1887, and a sum of \$27,796 for transit rates on similar matter to 31st December, 1888, is included, the whole of the former amount, and one-half of the latter properly belongs to the expenditure of previous years and would have been so included had the accounts with the United States been adjusted in time. A further sum of \$51,030 was paid to the Intercolonial and Prince Edward Island Railways, being for arrears due on previous accounts.

The transfer to the Finance Department of several subsidies for steamboat service heretofore charged against the Post Office made it necessary to close up the several accounts to 30th June (the Finance Department only taking over the services from the 1st July) for these subsidies, and added about \$5,000 to the expenditure of the Department under the head of Steamboat Service.

Allowance being made for these items of what may be termed extraordinary expenditure, it will be found that the increase in the ordinary expenditure of the Department has not been greater than the increased facilities afforded to the public will justify; and it must be remembered, that in connection with the Post Office service, reduction of expenditure can only be effected by a diminution of convenience. The Department has to pay the market price, be it high or be it low, for all ordinary mail service, inasmuch as contracts are let by public advertisement and the service awarded to the lowest bidder, as provided by law.

The cost of Railway Mail Service is fixed by Statute.

No large increase in the revenue can be anticipated so long as the Department has to carry vast quantities of printed matter at a very heavy cost, without receiving any remuneration in return.

MONEY ORDERS.

On the 30th June, 1888, there were 944 post offices in Canada authorized to transact Money Order business; to these were added during the past fiscal year 59, and of such offices 7 were discontinued, leaving on the 30th June, 1889, the total number of 993 Money Order Offices in operation.

993

The total number of money orders issued during the year was 673,813, of the value of \$11,265,919.95, being an increase in number of 42,845 and in amount of \$349,302.12 over the year ended 30th June, 1888, and 98,914 in number and \$936,925.44 in amount over the issue of the year 1887.

466,879 of the money orders issued during the past year, amounting to \$8,692,418.91 were payable within the Dominion; and 206,934, representing \$2,573,501.04, were payable in other countries or British Colonies.

Compared with last year, the increase in the amount of local issues is \$171,643.13 and in orders payable abroad \$177,658.90; the increase in money orders issued by other countries and paid in Canada amounts to \$30,933.29.

The total amount received from the Public for Commissions on the 673,813 orders issued during the past year was \$89,377.63, of which sum \$25,513.11 was allowed Postmasters of other than city offices for their share of commission on local orders issued and foreign orders paid, leaving an excess of receipts over expenditure, being the net revenue from fees on money orders, of \$53,864.52.

The Money Order Convention concluded with Japan on the 30th June last came into force on the 1st of October, and gives satisfactory indications that the arrangement will be found to be a great public convenience and materially assist in creating a trade between Japan and Canada.

A copy of the Convention is appended to this report, and in connection therewith it may be remarked that conventions for the direct inter change of money orders have been made between Canada and ten other countries, and money orders may now be procured in Canada for remittances to 73 foreign countries and British possessions, while seven years ago the only countries upon which money orders could be obtained were four, viz., the United Kingdom, British India, the United States and Newfoundland.

The Money Order Offices in operation on the 30th June, 1889, numbered 993; an increase of 46 during the year, the distribution being as follows:—

Ontario	524
Quebec	160
Nova Scotia	136
New Brunswick	94
Prince Edward Island	10
Manitoba,	23
North-West Territories.	20
British Columbia	26

The accompanying Tables (on preceding pages) exhibit the Money Order transactions, both domestic and foreign, up to the 30th June, 1889. It will be seen that the interchange of Money Orders with other countries was as follows:—

COUNTRY.	Issued in	Canada.	PAYABLE I	n Canada.
COUNTRY.	Number.	Amount.	Number.	Amount.
•		\$		\$
*United Kingdom	79,297	1,033,331	22,397	364,657
United States	118,017	1,391,743	74,851	1,261,103
France	2,621	31,719	723	13,833
Germany	2,909	30,929	415	10,518
Italy	1,227	32,044	41	1,654
Switzerland and Roumania	284	3,255	126	2,460
Belgium	737	15,876	166	4,937
Newfoundland	1,439	24,055	2,597	63,814
Jamaica	58	1,101	538	19,847
Australasian Colonies and New Zealand	345	9,448	557	14,121
Totals	206,934	2,573,501	102,411	1,756,944

^{*}Including all those British Possessions and a few foreign countries, between which and Canada ther not a direct Money Order Exchange.

Table showing the General Operations of the Money Order System in the Dominion of Canada, year by year, from 1st July, 1867, to 30th June, 1889.

				WHERE	WHERE PAYABLE.	n othe Jasyabl	Money to thor	semetanse Setmas Sing, Sta SiM br	stpe
Year ended 30th June.	To radmuV TO rabrO	Total Mun Money O bens	omA IstoT O yənoM sO ni bənz	In Canada.	In other Countries.	to tanomA ii benesI seirtanoO sebrareO ni	Gross Rever Fees on Orders, p Foreign E	Expenditures arries, Co tion to the ters, Print tionery are tersy are cellaneous.	Losses susta conducting Money Or tem.
			& cts.	& cts.	s cts.	e cts.	& cts.	s cts.	ets.
1868.	515	90,163	881	62		629	142	655	2,355 55
1870.	558	110,021	3,910,249 95	3,489,610 00	420,639 95	117,913 89	33,477 71	31,746 97	1,584 7
1872	634	136,422	120	610	_	230	382	998	
1873.	644	161,096	505	868		695	010	271	
1874	687	179,851	427	72		501	263	362	
1876	736	238,668	618	313	_	314	000	269	
1877	754	253,962	821	325		285	347	740	
1878	779	269,417		976	_	745	347	112	656 68
.0880	775	306,088	307,337	1013		651	276	287	
1881	786	338,238	25,212	247	-	734	335	722	
2882	908	372,248	354,153	926		028	392	449	
884	828	419,013	190,899	350		27.4	270	030	
288	885	499,243	84.210	03	207	750	265	911	
1886.	910	529,458	231,189	395	093	957	734	216	
2887	933	574,899	328,984	988	260	673	325	845	
	944	630,968	617	120	_	011	220	308	
	000	010,610	200, 213	ŧT0	700	344	14/		

XXV

". Into increase in the cost of management arises from the exhibition, for the first time, as a charge against the Money Order System, of the salaries of Clerks in City Post Offices, engaged exclusively in Money Order duties; also, from the preliminary expenses incurred in organizing Money Order Exchange with a number of additional Countries, as stated in the Report for the year ended 30th June, 1883.

b. Including the amount of the "Void" Orders of all previous years. Henceforward the "Void" Orders are brought to account each year in this column.

* Under the recent including payment for services partly chargeable to preceding year.

Under the recently introduced system of accounts, these items can no longer be given separately.

TABLE showing the Amount of Money Order transactions between the Dominion of Canada and other Countries, year by year, from 1st July, 1867, to 30th June, 1889.

AUSTRALASIAN COLONIES, AND NEW ZEALAND.	Amount of Money Orders, payable in Canada.	8 4 4 4 652 8 822 13,5477 14,121
AUSTE COL NEW Z	Amount of Money Orders issued in Canada.	8 8 8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
AICA.	Amount of Money Orders, payable in Canada.	\$8, 4,039 6,4,039 115,509 118,462 119,8462
Jamaica	Amount of Money Orders issued in Canada.	88 777 788 696 696 1,101 1,101 1,101 1
W- LAND.	Amount of Money Orders assaule in Canada.	8.8.3.142 9.8.9.142 9.8.9.9.142 9.9.9.192 9.9.9.193
NEW- FOUNDLAND.	Amount of Money Orders is a Canada.	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
HUM.	Amount of Money Orders, payable in Canada.	**************************************
Belgium	Amount of Money Orders is Sanada.	**************************************
RLAND	Amount of Money Orders payable in Canada.	8 696 11, 306 2, 460 2, 460
SWITZERLAND AND ROUMANIA	stebro VenoM of Money of States of in bensel	8 9 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
ITALY.	Amount of Money Orders, payable in Canada,	\$ 592 620 865 11,331 1,517 1,654
	arsbro Vanon A Money Orders is Canada.	\$ 111,482 32,3273 38,632 31,478 32,044
GERMANY, DENMARK, SWEDEN AND NORWAY.	Amount of Money Orders.	\$ 5,612 7,447 9,782 10,518
GERMANY, DENMARK, SWEDEN ANI NORWAY.	Amount of Money Orders issued in Canada.	\$ 22,039 29,425 40,318 39,797 30,929
	Amount of Money Orders, payable in Canada,	\$ 45,107 12,717 13,636
FRANCE	ared of Money Orders is Canada.	\$ 48,724 16,720 20,409 27,077 31,719
NGDOM.	Amount of Money Orders payable in Canada.	8,7,437 87,437 110,538 110,538 111,644 114,830 117,487 117,60
UNITED KINGDOM	srebro Veney Orders in Canada.	8 389,796 367,443 474,376 661,501 661,501 661,501 661,501 661,501 861,840 861,820 862,820 862,820 1763,446 986,646 987,560 1763,446 987,146 988,146 988,146 988,146 988,146 988,146 988,146 988,146 988,146 988,146 988,146 988,146 988,146
United States.	Amount of Money Orders payable in Canada.	\$ 156.134 207.889 206.586 308.256 494.637 1,015.358 959.691 820.046 820.046 81.353.094 1,263.034 1,263.034
UNITED	Amount of Money Orders issued in Canada.	\$ 212,135 276,821 276,821 335,204 335,204 420,966 610,094 781,190,852 1,282,245 1,282,882 1,282,882 1,282,882 1,282,882 1,282,882 1,282,882
	Year anded 30th June.	1868. 1871. 1872. 1872. 1873. 1873. 1874. 1876. 1876. 1881. 1888. 1888. 1888. 1888. 1888.

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* Nine months business only, from 1st October, 1883. † Eight months business only, from 1st November, 1884. † Including Money Orders payable in several countries that have no direct exchange of Money Orders with Canada.

POST OFFICE SAVINGS BANK.

During the fiscal year 30 new Savings Bank Offices were opened, making 463 as the total number in operation on the 30th of June.

The following figures show the volume and increase of business as compared with the previous year:—

	1888	1889.	·Increase.	Percentage of Increase.
Number of offices do deposits. Amount of do Number of withdrawals Amount of do Number of new accounts. Open accounts on 30th June Balance due do	\$ 7,514,071	\$ 166,235 \$ 7,926,634 \$ 4,572 \$ 7,532,145 38,049 113,123 \$ *23,011,422	30 10,257 \$ 204,304 6,343 \$ 18,074 534 11,430 \$ 2,322,390	$7 \\ 6\frac{3}{5} \\ 3 \\ 8 \\ 0\frac{1}{4} \\ 1\frac{3}{7} \\ 11 \\ 10\frac{1}{4}$

^{*} This amount includes \$1,085,979 transferred from the closed Agencies of the Dominion Government Savings Bank, and \$841,921 the accrued interest for the year.

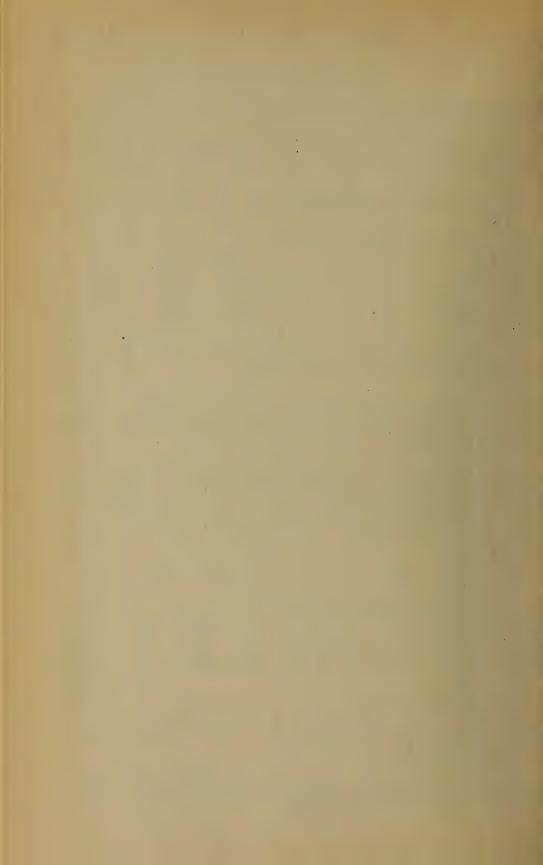
The average amount of each deposit was \$47.67, and of each withdrawal, \$89.06; and the average balance at the credit of each depositor's account on the 30th of June was \$203.41. The rule limiting the amount which may be annually deposited to \$300 has, since its adoption in 1887, been rigidly enforced.

In accordance with the policy of the Government adopted in 1888, of closing, as the circumstances in each case might suggest, the agencies of the Dominion Government Savings Bank and of placing the depositors' accounts under the management of the Post Office Savings Bank, the following transfers have been effected:—

Agency.	Date of Transfer.	No. of Accounts Trans- ferred.	Amount.
New Westminster, B.C. Digby, N.S. Moncton, N.B. Hillsborough, N.B. Guaco, N.B. Windsor, N.S. Totals	Aug. 1, 1888 Sept. 1, 1888 Nov. 1, 1888 Jan. 1, 1889	772	\$ ets. 217,385 10 151,691 27 293,279 85 76,425 90 20,341 31 544,241 39 1,303,364 82

The number of claims to moneys left by deceased depositors, in which the evidence admitted of settlement, was 748. Fourteen of the cases required reference to the Minister of Justice.

As in former years, a tabular statement is appended, showing the growth and progress of the Post Office Savings Bank since its establishment in 1868.



The lamented decease of Mr. John Cunningham Stewart, Financial Comptroller of the Department, who died on the 26th December, 1888, was a severe blow to the service. Cut off in the prime of manhood at a time, when to all human appearance, he had before him a long career of usefulness and just as he was bringing into practical operation those changes in the accounting branches of the Department to the consideration and elaboration of which he had so thoroughly devoted himself, his loss could not but be severely felt, and he will long be remembered in the Post Office as one to whom duty was ever the first consideration, and the welfare of the service the goal of his ambition.

Another important change in the staff of the Department took place on the 1st July last, from which date Mr. John Dewé, Chief Post Office Inspector, who, for more than half a century, had occupied a leading position amongst the chief officers of the Post Office, retired to enjoy that rest and relaxation so richly due to long and faithful service.

Mr. Dewé has been succeeded as Chief Post Office Inspector by Mr. Matthew Sweetman, for many years Post Office Inspector at Toronto.

It has been well remarked that both in the United Kingdom and in the United States, the introduction of women into the Civil Service, whilst in no way lessening its efficiency, has tended to improve the morals of the service, and to introduce a courtesy in the conduct of business which men working by themselves are too apt to despise. Several of the young ladies recently appointed to the Post Office service have shewn remarkable aptitude in acquiring a knowledge of their duties.

In conclusion, I feel that it is only a duty which I owe to the officers of the Department generally, to express my sincere thanks for the hearty co-operation I have at all times received from every member of the staff, whether at headquarters or in the Provinces.

WILLIAM WHITE,

Deputy Postmaster-General

Convention for the Exchange of Money Orders between the Post Office Department of the Dominion of Canada and the Department of Communications of the Empire of Japan.

ARTICLE I.

There shall be a regular exchange of Money Orders between the Dominion of Canada and the Empire of Japan.

ARTICLE II.

The amounts of orders, in both directions, shall be expressed in Canadian currency, and, on account of the frequent fluctuations in the rate of exchange between the two countries, it is agreed that all amounts shall be converted into their proper equivalents by the Japanese Post Office: that is to say, the sums received by the Japanese Post Office for Orders drawn on Canada shall be converted at the time of issue into Canadian currency at the current rate of exchange; and the amounts of Orders drawn in Canada on Japan shall, in like manner, be rendered by the Japanese Post Office into the currency of Japan, at the current rate of exchange on the day of the arrival of the exchange list.

ARTICLE III.

The maximum amount for which a Money Order may be drawn in either country upon the other shall be Fifty dollars.

ARTICLE IV.

No Money Order shall contain a fractional part of a cent.

ARTICLE V.

The amounts of Money Orders shall be deposited by the remitters, and paid to the payees in gold coin, or in any other legal money of the same current value.

However, in case there should be in circulation in either country, a paper currency of legal tender, but of less value than gold, the Administration of that country shall have the right to receive and employ the same in its relations with the public, taking into account the difference of value.

ARTICLE VI.

The Post Office Department of Canada and the Department of Communications of Japan shall each have power to fix, from time to time, the rates of commission to be charged on all Money Orders they may respectively issue. This commission shall belong to the issuing Postal Administration, but the Post Office Department of Canada shall pay to the Department of Communications of Japan one-half of one per cent (of 1 per cent.) on the amount of orders issued in Canada and payable in Japan; and the Department of Communications of Japan shall make a like payment to the Post Office Department of Canada for Money Orders issued in Japan and payable in Canada.

ARTICLE VII.

No Money Order shall be issued unless the applicant furnish, in full, the surname, and at least the initial of one Christian name, both of the remitter and payee (or the corresponding names in the case of natives of Japan); or the name of the firm or company who are the remitters or payees, together with the address of the remitter and that of the payee. If, however, any applicant for a Money Order shall tender the name of either the remitter or payee at greater length, such particulars shall be received, and the list shall be made out accordingly.

ARTICLE VIII.

*The service of the Postal Money Order system between the two countries shall be performed exclusively by the agency of the Offices of Exchange. On the part of Canada the Office of Exchange shall be Victoria, B. C., and on the part of Japan, Tokio.

ARTICLE IX.

The particulars of all Money Orders drawn in Canada upon Japan shall be entered at the Exchange Office, Victoria, B.C., in a list similar to the form marked "A" (in the appendix), in which shall be shown the amount of each Order in Canadian currency, which list, after having received the impression of the Victoria date stamp, shall be forwarded to the Department of Communications (Direction of International Correspondence) at Tokio, where it shall be impressed with the date stamp of the Department, and where the requisite arrangements for effecting payment of the Orders shall be carried out. In like manner, the particulars of Money Orders drawn in Japan on Canada shall be entered at the Department of Communications (Direction of International Correspondence) at Tokio, in a list similar to the form marked "B," in which shall be shown the amount of each Order in the money of both countries, which list, after having received the impression of the date stamp of that Department, shall be forwarded to the Exchange Office of Victoria, where it shall receive the impression of the date stamp in use, at the Office, and where the necessary arrangements for effecting payment of the Orders shall be carried out.

Each list, as well as the entries in the list, despatched shall be numbered consecutively 1, 2, 3, 4, 5, &c., in an unbroken series, in the order of despatch, and the receipt of each list shall be acknowledged, on either side, by means of the first

subsequent list forwarded in the opposite direction.

Such list shall be transmitted whenever there are Money Orders to be advised from either country to the other, and, in order to prevent inconvenience in case the original list should be lost, each office shall forward by the following mail a duplicate

of the list sent by the preceding mail.

The Orders issued in Canada during the quarter ending 30th June of each year, which may arrive at the Office of Exchange at Victoria in the following quarter, shall be entered on lists supplementary to the last list of the month of June, and, in like manner, the Orders issued in Japan during the quarter ending 30th June, of each year, which may arrive at the Exchange Office of Tokio in the following quarter, shall be entered on lists supplementary to the last list of the month of June.

ARTICLE X.

As soon as the list of the despatching office shall have reached the receiving Office of Exchange, the latter shall make out internal Money Orders in favor of the payees for the amounts specified in the list, and shall forward them, free of postage, to the addressees, or to the offices of destination, in conformity with the regulations existing in each country for the payment of Money Orders.

When the lists shall show irregularities which the receiving office shall not be able to rectify, that office shall demand an explanation from the despatching office which shall give such explanation with as little delay as possible. Pending the receipt of the explanation, the issue of domestic Money Orders for payment relating

to the entries found to be erroneous in the list shall be suspended.

One copy of each Exchange List shall be returned by the receiving Exchange Office to the despatching Exchange Office, but before returning such copy, the receiving Exchange Office shall enter therein the names of the respective offices of payment of the Orders enumerated in the list, and, in the lists from Canada returned by the Japanese Office, the latter office shall also enter the amount of each Order in Japanese money, according to the conversion made by it.

ARTICLE XI.

The Orders issued by each country on the other shall be subject, as regards payment, to the regulations which govern the payment of domestic orders in the country of destination. It is agreed that all Money Orders paid in either country shall be retained in the country in which they are paid.

ARTICLE XII.

When it is desired that any error in the name of the payee or remitter shall be corrected, or that the amount of a Money Order shall be repaid to the remitter, application must be made by the remitter to the Postal Administration of the country in which the order was issued. Duplicate orders shall only be issued by the Postal Administration of the country on which the original Orders were drawn, and in conformity with the regulations established, or to be established, in that country.

ARTICLE XIII.

Repayment, whether of an original or by means of a duplicate Order, shall not be made to the remitter until it has been ascertained, through the Postal Administration of the country where such Order is payable, that the Order has not been paid, and shall not be paid in the Office of payment.

ARTICLE XIV.

Orders which shall not have been paid within twelve calendar months from the month of issue, shall become void, and the sums received shall accrue to, and be at the disposal of, the country of issue.

The Department of Communications of Japan shall, therefore, enter to the credit of Canada, in the quarterly account, all Money Orders entered in the lists received

from Canada, which remain unpaid at the end of the period specified.

On the other hand, the Post Office Department of Canada shall, at the close of each month, transmit to the Department of Communications of Japan, for entry in the quarterly account, a detailed statement of all Orders included in the lists despatched from the latter office which, under this article, become void.

ARTICLE XV.

At the close of each quarter an account shall be prepared at the Department of Communications, Tokio, showing, in detail, the totals of the lists containing the particulars of Orders issued in either country during the quarter, and the balance

resulting from such transactions.

Two copies of this account shall be transmitted to the Post Office Department of Canada at Ottawa, and the balance, after proper verification, shall, if due by the Department of Communications of Japan, be paid at New York, in Canadian currency, at the same time that it transmits the account, and, if due by the Post Office Department of Canada, it shall be paid at the same time that it returns the accepted copy of the account by means of a Bill of Exchange on Yokohama, for as much in the legal currency of Japan as can be obtained, at the market rate, for the balance due Japan in Canadian currency.

For this quarterly account forms shall be used in exact conformity with the

patterns, C, D and E, in the appendix.

If, pending the settlement of an account, one of the two Postal Administrations shall ascertain that it owes the other a balance exceeding Five thousand dollars (\$5,000), the indebted Administration shall promptly remit the approximate amount of such balance to the credit of the other.

ARTICLE XVI.

The Postmaster General of Canada and the Minister of Communications of Japan shall be authorized to adopt any additional rules, if not repugnant to the foregoing,

for the greater security against fraud, or for the better working of the system generally. All such additional rules, however, must be communicated to the Postal Administration of the other country.

ARTICLE XVII.

Should it appear that Money Orders are used by mercantile men either in Canada, or in Japan, for transmission of large sums of money, the Canadian or Japanese Postal Administration, as the case may be, shall have the power of increasing the commission, and even of wholly suspending, for a time, the issue of Money Orders.

ARTICLE XVIII.

This Convention shall come into effect on the 1st October, 1889 (1st day of 10th month of 22nd year of Meiji), and shall continue in force until twelve months after either of the contracting parties shall have notified to the other its intention to terminate it.

Done in duplicate and signed in Ottawa on 27th day of June, 1889, and in Tokio on 16th day of 5th month of 22nd year of Meiji.

(Sd.) JOHN HAGGART, Postmaster General of the Dominion of Canada. $\left\{ \widetilde{\text{L. S.}} \right\}$

(Sd.) S. GOTO, Minister of State for Communications of Japan. $\{L.S.\}$



•			Arrived	P	ASSAGE.	- Number	Freight	IN Tons.	Left	Arrived	I	ASSAGE.	Number	
STEAMSHIP.	CAPTAIN.	Left Liverpool.	at Halifax.	Баув.	Hours. Minutes.	of Passengers.	United States.	Canada.	Halifax.	Liverpool.	Days.	Hours.	of Passengers.	REMARKS.
Polynesian. Vancouver Sarmatian Sarnia Parisian Oregon Polynesian. Vancouver Sarmatian Sarnia Circassian Oregon, Polynesian. Dominion	Initial Richardson. Gibson Ritchie Williams. Wylie Lindall Richardson Gibson Barrett Williams Wylie Cross	do 19. do 22. do 29. Dec. 6. do 13. do 20. do 27. Jan. 4. do 10. do 17. do 24. do 31.	Nov. 18 do 28 Dec. 2 do 9 do 16 do 24 do 31 Jan. 5 do 17 do 20 do 27. Feb. 4 do 13 do 13 do 19	9 9 9 9 8 10 10 8 13 9 9 10 11	4 0 12 0 20 0 9 0 23 0 2 0 12 0 4 0 9 0 13 0 9 0 3 0 17 0	167 80 170 98 160 83 71 90 92 101 77 80 192 116	Tons. 455 2 210 10 371 3 455 69 108 292 295 494 50	Tons. 1,478 1,410 1,417 1,571 1,571 1,990 1,373 1,690 1,473 1,848 1,912 1,990 1,800 2,060 2,292 2,292	Dec. 1. do 8. do 15. do 22. do 29. Jan. 5. do 12. do 19. do 25. Feb. 2. do 9. do 16. do 22. Mar. 2.	Dec. 10do 16do 24do 31Jan. 7do 14do 20do 27Feb. 6do 12do 18do 25Mar. 5do 13do 13d	8 7 8 8 7 111 9 8 8 10 10 10 0	6 30 19 0 10 0 20 0 15 50 17 0 5 0 18 0 7 0 10 0 20 0 16 0 0 0 0 18	96 134 133 47 79 38 57 78 54 34 63 57 60 32	The bulk of this steamer's homeward cargo was loaded at Portland. do
Sardinan Sarnia Circassian Oregon Parisian Vancouver. Peruvian Sarnia	Mehardson Gibson Barrett Williams Ritchie Lindall Stephen	do 14do 21do 28Mar. 7do 14do 21do 28Apr. 4	do 25. Mar. 2 do 9 do 17. do 24 do 30 Apr. 9 do 13 do 20	10 8 8 9 9 8 10 8 8	7 30 11 0 6 0 18 0 3 0 17 0 0 0 21 0 9 45	239 137 316 381 921 876 649 628 709 	469 480 291 262 234 51 351 57 238	2,065 1,939 2,229 1,158 1,518 1,365 1,234 1,725 1,189	do 8 do 16 do 22 do 30 Apr. 5 do 13 do 20 do 30 May 3	do 18 do 26 Apr. 1 do 8 do 15 do 22 do 30 May 9 do 13	9 9 8 8 9 8 11 8 8 206	3 0 19 0 13 0 0 0 17 30 8 0 6 0 19 0 9 0	54 41 57 40 121 79 51 35 77 1,517	do d
Average passage Westward				9	16 30		Average pass	age Eastward			. 8	23 30		

RETURN of Passages, Number of Passengers and Cargoes of the Steamships of the Allan Line, under Contract for the Conveyance of Mails from Liverpool to Quebec, and from Quebec to Liverpool, from 18th April, 1889, till 22nd November, 1889.

Parisian Barrett April 18. April 19. 10 14 6 5 5 5 5 5 5 5 5 5	STEAMSHIP	CAPTAIN.	Left Liverpool.	Waenec.	Days. Hours. Minutes.	Number of Passen- gers.	Quebec and East.	Montreal and West.	Left Quebec.	Arrived at Liverpool.	Days. Hours. Minutes.	Number of Passen- gers.	Ashes.	Flour and Oatmeal, Ou	Apples.	Bushels Grain.	Packages Butter.	Boxes Cheese.	Tierces Beef.	Packages Lard.	Barrels Meat.	Boxes Meat.	Boxes Canned Meats.	Cases Leather.	Packages Spools and Spoolwool.	Cases Splints. "	Pieces, Deals, Boards and Logs.	Sundries.	Total Barrel Bulk.	Remarks.
	Parisian +Polynesian. +Polynesian. +Polynesian. +Polynesian. Caspian Vancouver. Sardinian. Caspian Vancouver. Sardinian. Caspian Vancouver. Sardinian. Oregon. Parisian Vancouver. Sardinian. Circassian Parisian Vancouver. Sardinian. Oregon. Parisian Vancouver. Sardinian. Oregon. Parisian Polynesian. Vancouver. Sardinian. Oregon. Polynesian. Vancouver. Sardinian. Oregon.	Ritche Wylie a Scott Lindall Richardson. Williams. Ritchie McDougall Lindall Richardson. Barrett Ritchie McDougall Lindall Richardson. Williams Ritchie McDougall Lindall Richardson Ritchie McDougall Lindall Lindall Lindall Lindall Richardson Barrett Ritchie Wylie Richardson Wylie Lindall Richardson Barrett Ritchie Wylie Lindall Richardson Barrett Ritchie Wylie Lindall Richardson Williams Ritchie Lindall Richardson Williams Ritchie	do 25. May 9 do 16 do 23 do 30 June 7 do 13 do 27 July 4 do 18 do 28 do 29 Logo 15 do 8 do 15 do 16 do 19 do 19 do 20 do 19 do 20 do 19 do 10 do 10	May 4. do 12. May 19. do 27. June 2. do 10. do 18. do 24. July 1. do 7. do 17. do 27. Aug. 4. do 16. do 25. do 31. Sept. 7. do 21. do 25. do 31. Sept. 7. do 24. do 21. do 25. do 31. Sept. 7. do 21. do 20.	8 18 0 9 11 0 8 15 50 9 7 40 9 12 30 8 10 37 11 1 40 8 23 20 10 6 20 9 15 0 8 4 12 9 1 15 7 18 30 8 20 0 9 8 4 12 9 1 15 7 18 30 8 20 0 9 8 8 10 0 8 8 10 0 8 11 0 8 21 20 1 10 2 30 1 10	999 630 662 722 282 832 442 660 392 307 370 278 371 196 534 349 520 631 288 392 230 431 341 342 343 343 343 343 343 343 343	201 95 95 78 127 43 126 48 64 107 79 134 160 149 57 92 31 11 98 238 238 238 238 175 59 99 79 56 84 117 48	2,074 1,536 1,674 1,123 1,916 1,081 2,245 1,077 1,133 1,676 1,138 1,536 1,768 1,768 1,138 1,981 1,981 1,981 1,982 1,694 2,076 2,076 2,421 1,856 1,306 1,306 1,077 1,138 1,694 1,942 2,076 2,076 2,421 2,157	do 16. May 23. do 30. June 6. do 13. do 20. do 27. July 4. do 11. do 18. do 28. do 29. Sept. 5. do 29. Cot. 3. do 10. do 17. do 17. do 14. do 17. do 15. do 20.	do 24. June 2. do 8. do 15. do 28. July 7. do 13. do 27. do 13. do 27. do 15. do 27. do 13. do 27. do 16. do 28. July 7. do 13. do 19. do 28. Nov. 2 do 9. do 24.	8 6 55 9 10 0 8 16 25 9 5 0 9 4 30 9 21 30 9 21 30 8 13 35 8 22 0 9 18 30 8 23 0 9 5 30 8 13 30 8 23 0 9 5 30 8 13 30 9 23 0 8 8 20 8 8 20 8 8 20 8 8 20 8 8 20 8 8 20 8 8 20 8 8 20 8 8 20 8 8 20 8 8 20 8 8 20 8 8 20 8 8 20	287 160 110 371 153 374 42 229 102 290 106 230 120 55 55 55 55 151 151 151 151 366 188 235 98 258 258 248	10 10 11 11 15 9	3,551 100 1,058 1,235 234 2,200 3,934 2,504 1,849 125 575 2,150 8,606 2,333 1,175 8,524 8,524 10,087 775 1,332	70 911 403 1,260 2,742 3,853 6,491 5,294 8,765 5,552 9,631	69,451 02,782 38,335 46,069 32,236 43,220 40,506 51,124 33,936 30,049 46,179 42,699 35,500 43,977 36,156 50,752 28,657 53,995 30,047 38,343 32,258 30,100 24,506 40,301	450 78 1,612 701 100 694 178 197 300 100 160 162 1,335	1,642 59 7,047 7,049 10,864 15,073 5,134 9,053 6,064 6,385 10,302 8,338 8,348 7,278 8,543 8,543 8,543 8,543 8,543 8,348 1,757 14,961 15,579 16,586 16,	294 297 201 65 95 291 80 81 15 79 161 15 43 213	1,000 93 65 200 750	80 8 3 1 55 23 60 7 1 100 100 31	221 246 1,127 1,400 2,101 1,227 204 1,991 1,475 4,754 1,227 1,600 784 896 1,064 1,769 1,418 2,114 2,306 1,517 1,119 2,36 1,517 1,123 2,36 3,517 1,236 1,236	300 300 320 250 750 695 200 306 347 500 1,250 1,200 30 500	53 657 41 62 30 519 62 39 86 25 16 6 46 41 11 11	516 29 3,921 56	451 1,451 350 150 470 57 631 448 550 82 152 414	12,569 13,068 38,060 1,591 27,461 8,869 18,503 8,678 17,039 1,591 16,795 1,196 16,795 1,196 18,503 31,427 2,874 3,765 219 18,742 15,309 2,543 2,577 7,895	250 11 39 200 47 225 145 144 194 32 121 20 10 267 27 252 284 29 3 60 37 33 56 62 33 57 701	25,916 26,477 24,877 20,806 29,279 26,014 16,296 26,725 11,107 21,466 25,721 21,144 25,351 25,672 21,144 20,100 29,845 20,100 29,845 22,075 21,788 20,100 29,845 22,075 23,788	587 head of cattle. 100 tons phosphates. 510 blocks. 3,123 shooks. 901 bags oil cake; 130 tons phosphates 348 bags oil cake. 1,123 bags oil cake. 100 tons phosphates. 80 casks oil. 336 packages furs.

^{*} Damaged in collision with SS. "Cynthia" off Longue Pointe, 22nd May, and docked at Quebec for repairs. + Took home mails intended for "Polynesian."

Glasgow.

Montreal, 10th December, 1889.



STATEMENT OF THE REVENUE AND EXPENDITURE OF THE POST OFFICE DEPARTMENT OF THE DOMINION OF CANADA, FOR THE YEAR ENDED 30th JUNE, 1889.

DOMINION OF CANADA.

REVENUE.

Balances due by Postmasters on old revenue account to 30th June, 1888 These balances, owing to the new system of accounting for the revenue, wer further increased by a supplementary quarter; the revenue from which amounting to \$162,978.45, was brought to account as a separate item in the Post Office statement of last Year.	e i, n	\$	cts.
the rost Office statement of fast rear	. 52,700 02	75 964	77
Postage stamps, post cards, &c., sold. Postage paid in money, on letters Postage paid in money, on newspapers Postage collected by Letter Carriers Transit postage from Great Britain Rents of letter boxes and drawers. Other miscellaneous receipts. Commissions received on Money Orders. Profit in exchange on Money Order business with other Countries.		16,107 860 225 3,374 21,530 1,725 89,377 1,686	12 56 02 11 62 29 92 63
Void Money Orders, that is, Money Orders issued between 1st July, 1886, a 1888, payment of which had not been claimed up to 30th June, 1889	nd 30th June,	4,083	32
Gross Revenue		\$2,984,222	60
			-
DEDUCTIONS FROM REVENUE.	\$ ets.		
DEDUCTIONS FROM REVENUE. Salaries, forward allowances, allowances towards rent, fuel and light, and compensation to Postmasters on Money Order business. Discount to Stamp Vendors. Mis-sent and dead letters. Other miscellaneous disbursements Amount paid for the redemption of postage stamps Transit rates on mail matter passing through the United States for other Countries, from 1st April, 1886, to 31st December, 1888. Transit rates on mail matter passing between Newfoundland and the Dominion of Canada, from 1st April, 1886, to 31st December, 1887. Balance of commission paid to other Countries on Money Order business Balances still due by Postmasters upon old revenue account, on 30th June, 1889	\$ cts. 623,011 75 14,864 07 2,566 15 705 55 3,754 15 79,028 32 3,900 90 2,914 16 185 05 32,788 84	763,718	
Salaries, forward allowances, allowances towards rent, fuel and light, and compensation to Postmasters on Money Order business Discount to Stamp Vendors	623,011 75 14,864 07 2,566 15 705 55 3,754 15 79,028 32 3,900 90 2,914 16 185 05 32,788 84		94

DOMINION OF CANADA.

EXPENDITURE BY CHEQUE, FROM PARLIAMENTARY APPROPRIATION.

	\$	cts.
Conveyance of mails by land	740,206	
do steamboats, &c	107,765	
do railways		
Making and repairing mail bags and locks.	17,273	54
Total Mail Service	\$1,789,670	42
Salaries paid by cheque	988,617	60
Salaries paid by cheque. Travelling expenses.	16,692	24
Tradesmen's bills	74,627	82
Rents and taxes	1,780	83
Stationery, printing and advertising	66,010	32
Other miscellaneous disbursements paid by cheque	44,922	25
Total Expenditure by Cheque	\$2,982,321	48

W. H. SMITHSON,
Accountant.

STATEMENT OF THE REVENUE AND EXPENDITURE OF THE POST OFFICE DEPARTMENT OF CANADA, IN THE PROVINCE OF ONTARIO, FOR THE YEAR ENDED 30th JUNE, 1889.

PROVINCE OF ONTARIO.

REVENUE.

Balances due by Postmasters on old revenue account to 30th June, 1888 These balances, owing to the new system of accounting for the revenue, wer further increased by a supplementary quarter; the revenue from which wa brought to account as a separate item in the Post Office statement of las Year.	e s t	\$	cts.
		20,833	53
Postage stamps, post cards, &c., sold Postage paid in money, on letters Postage paid in money, on newspapers Postage collected by Letter Carriers.		469	90 33
Transit postage from Great Britain. Rents of letter boxes and drawers. Other miscellaneous receipts.		1,894 5,120	$\begin{array}{c} 70 \\ 63 \end{array}$
Commissions received on Money Orders. Profit in exchange on Money Order business with other Countries. Void Money Orders, that is, Money Orders issued between 1st July, 1886, an		44,294 946	09
1888, payment of which had not been claimed up to 30th June, 1889	, ,	2,292	68
Gross Revenue		\$1,639,493	58
DEDUCTIONS FROM REVENUE.	\$ cts.		
C. 1. ' C 1 . Norman all amounts for and light and			
Salaries, forward allowances, allowances towards rent, fuel and light, and compensation to Postmasters on Money Order business			
	254 705 20		
Compensation to 1 ostinasters on Money Order business	354,795 30		
Discount to Stamp Vendors	7,917 77		
Discount to Stamp Vendors. Mis-sent and dead letters.	7,917 77 1,215 73		
Discount to Stamp Vendors. Mis-sent and dead letters. Other miscellaneous disbursements.	7,917 77 1,215 73 224 00		
Discount to Stamp Vendors. Mis-sent and dead letters Other miscellaneous disbursements. Amount paid for the redemption of postage stamps.	7,917 77 1,215 73		
Discount to Stamp Vendors. Mis-sent and dead letters. Other miscellaneous disbursements. Amount paid for the redemption of postage stamps. Transit rates on mail matter passing through the United States for other Countries, from 1st April, 1886, to 31st December, 1888.	7,917 77 1,215 73 224 00		
Discount to Stamp Vendors. Mis-sent and dead letters Other miscellaneous disbursements. Amount paid for the redemption of postage stamps. Transit rates on mail matter passing through the United States for other Countries, from 1st April, 1886, to 31st December, 1888. Transit rates on mail matter passing between Newfonndland and the Domin-	7,917 77 1,215 73 224 00 2,107 79 44,371 25		
Discount to Stamp Vendors. Mis-sent and dead letters. Other miscellaneous disbursements. Amount paid for the redemption of postage stamps. Transit rates on mail matter passing through the United States for other Countries, from 1st April, 1886, to 31st December, 1888. Transit rates on mail matter passing between Newfoundland and the Dominion of Canada, from 1st April, 1886, to 31st December, 1887.	7,917 77 1,215 73 224 00 2,107 79 44,371 25 2,190 19		
Discount to Stamp Vendors. Mis-sent and dead letters. Other miscellaneous disbursements. Amount paid for the redemption of postage stamps. Transit rates on mail matter passing through the United States for other Countries, from 1st April, 1886, to 31st December, 1888. Transit rates on mail matter passing between Newfoundland and the Dominion of Canada, from 1st April, 1886, to 31st December, 1887. Balance of commission paid to other countries on Money Order business	7,917 77 1,215 73 224 00 2,107 79 44,371 25 2,190 19 1,636 17		
Discount to Stamp Vendors. Mis-sent and dead letters. Other miscellaneous disbursements. Amount paid for the redemption of postage stamps. Transit rates on mail matter passing through the United States for other Countries, from 1st April, 1886, to 31st December, 1888. Transit rates on mail matter passing between Newfoundland and the Doninion of Canada, from 1st April, 1886, to 31st December, 1887. Balance of commission paid to other countries on Money Order business. Cost of remittances to the United States on Money Order business.	7,917 77 1,215 73 224 00 2,107 79 44,371 25 2,190 19 1,636 17 103 89		
Discount to Stamp Vendors. Mis-sent and dead letters. Other miscellaneous disbursements. Amount paid for the redemption of postage stamps. Transit rates on mail matter passing through the United States for other Countries, from 1st April, 1886, to 31st December, 1888. Transit rates on mail matter passing between Newfoundland and the Dominion of Canada, from 1st April, 1886, to 31st December, 1887. Balance of commission paid to other countries on Money Order business	7,917 77 1,215 73 224 00 2,107 79 44,371 25 2,190 19 1,636 17	421,304	36
Discount to Stamp Vendors. Mis-sent and dead letters. Other miscellaneous disbursements. Amount paid for the redemption of postage stamps. Transit rates on mail matter passing through the United States for other Countries, from 1st April, 1886, to 31st December, 1888. Transit rates on mail matter passing between Newfonndland and the Dominion of Canada, from 1st April, 1886, to 31st December, 1887. Balance of commission paid to other countries on Money Order business. Cost of remittances to the United States on Money Order business. Balances still due by Postmasters upon old revenue account, on 30th June, 1889	7,917 77 1,215 73 224 00 2,107 79 44,371 25 2,190 19 1,636 17 103 89 6,742 27		
Discount to Stamp Vendors. Mis-sent and dead letters. Other miscellaneous disbursements. Amount paid for the redemption of postage stamps. Transit rates on mail matter passing through the United States for other Countries, from 1st April, 1886, to 31st December, 1888. Transit rates on mail matter passing between Newfoundland and the Donninion of Canada, from 1st April, 1886, to 31st December, 1887. Balance of commission paid to other countries on Money Order business. Cost of remittances to the United States on Money Order business.	7,917 77 1,215 73 224 00 2,107 79 44,371 25 2,190 19 1,636 17 103 89 6,742 27		

PROVINCE OF ONTARIO.

EXPENDITURE BY CHEQUE, FROM PARLIAMENTARY APPROPRIATION.

	\$ ets.
Conveyance of mails by land	273,547 10
do steamboats, &c	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
do railways	9,390 31
Total Mail Service	
Salaries paid by cheque. Travelling expenses Tradesmen's bills.	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Tradesmen's bills	40,515 08 375 00
Rents and taxes	
Other miscellaneous disbursements paid by cheque	25,096 63
Total Expenditure by Cheque	\$1,314,344 75

W. H. SMITHSON,
Accountant.

STATEMENT OF THE REVENUE AND EXPENDITURE OF THE POST OFFICE DEPARTMENT OF CANADA, IN THE PROVINCE OF QUEBEC, FOR THE YEAR ENDED 30th JUNE, 1889.

PROVINCE OF QUEBEC.

REVENUE.

· · · · · · · · · · · · · · · · · · ·			-
Balances due by Postmasters on old revenue account, to 30th June, 1888 These balances, owing to the new system of accounting for the revenue, were further increased by a supplementary quarter; the revenue from which was brought to account as a separate item in the Post Office statement of last Year.	e s t	\$	ets.
1.001	0,002 21	21,639	0.4
Postage stamps, post cards, &c., sold Postage paid in money, on letters. Postage paid in money, on newspapers Postage collected by Letter Carriers		584,957 3,939 216	74 33 57
Transit postage from Great Britain Rents of letter boxes and drawers Other miscellaneous receipts Commissions received on Money Orders		$ \begin{array}{r} 712 \\ 6,915 \\ 456 \end{array} $	2 49 5 23 5 26
			02
Profit in exchange on Money Order business with other Countries Void Money Orders, that is, Money Orders issued between 1st July, 1886, an			02
1888, payment of which had not been claimed up to 30th June, 1889			15
Gross Revenue		\$631,461	62
DEDUCTIONS FROM REVENUE.	\$ cts.		
Calarian formand all annual all annual and for a small shall and			
Salaries, forward allowances, allowances towards rent, fuel and light, and	00.007.90		
compensation to Postmasters on Money Order business Discount to Stamp Vendors	99,827 32 3,752 76		
Mis-sent and dead letters.	530 23		
Other miscellaneous disbursements	146 50		
Amount paid for the redemption of postage stamps	792 63		
Transit rates on mail matter passing through the United States for other	194 00	i	
Countries, from 1st April, 1886, to 31st December, 1888	16,685 64		
Transit rates on mail matter passing between Newfoundland and the Domin-	202 61		
ion of Canada, from 1st April, 1886, to 31st December, 1887	823 61 615 97		
ion of Canada, from 1st April, 1886, to 31st December, 1887	615 27		
ion of Canada, from 1st April, 1886, to 31st December, 1887	615 27 39 07		
ion of Canada, from 1st April, 1886, to 31st December, 1887	615 27	132,865	5 29
ion of Canada, from 1st April, 1886, to 31st December, 1887	615 27 39 07	132,865	5 29

PROVINCE OF QUEBEC.

EXPENDITURE BY CHEQUE, FROM PARLIAMENTARY APPROPRIATION.

	\$	cts.
Conveyance of mails by land	152,739	
do steamboats, &c	28,747 $191,463$	
Making and repairing mail bags and locks	4,980	
Total Mail Service	\$377,931	
Salaries paid by cheque	257,528 $5,693$	
Salaries paid by cheque Travelling expenses Tradesmen's bills Rents and taxes.	16,823	
Rents and taxes	955	83
Stationery, printing and advertising. Other miscellaneous disbursements paid by cheque.	13,963 10,304	
Other miscenaneous dispursements paid by eneque	10,304	00
Total Expenditure by Cheque	\$683,201	44

W. H. SMITHSON,
Accountant.

STATEMENT OF THE REVENUE AND EXPENDITURE OF THE POST OFFICE DEPARTMENT OF CANADA, IN THE PROVINCE OF NOVA SCOTIA, FOR THE YEAR ENDED 30th JUNE, 1889.

PROVINCE OF NOVA SCOTIA.

REVENUE.

Balances due by Postmasters on old revenue account to 30th June, 1888			
These balances, owing to the new system of accounting for the revenue, we further increased by a supplementary quarter; the revenue from which we brought to account as a separate item in the Post Office statement of la Year.	re as st	,	ets.
		12,627	04
Postage stamps, post cards, &c., sold Postage paid in money, on letters Postage paid in money, on newspapers Postage collected by Latter Carriers		209,362 718 63	84
Postage collected by Letter Carriers Transit postage from Great Britain.		254	08
Rents of letter boxes and drawers.		1,725	
Other miscellaneous receipts.		119	
Commissions received on Money Orders		13,046	
Profit in exchange on Money Order business with other Countries		127	
Void Money Orders, that is, Money Orders issued between 1st July, 1886, as	nd 30th June,		
1888, payment of which had not been claimed up to 30th June, 1889		308	44
Gross Revenue		\$238,355	03
DEDUCTIONS FROM REVENUE.	\$ cts.		
	0000		
Salaries, forward allowances, allowances towards rent, fuel and light, and			
compensation to Postmasters on Money Order business	64,487 17		
Discount to Stamp Vendors	803 61		
Mis-sent and dead letters	141 44		
Other miscellaneous disbursements	26 30		
Amount paid for the redemption of postage stamps	283 65		
Transit rates on mail matter passing through the United States for other			
Countries, from 1st April, 1886, to 31st December, 1888	5,971 50		
Transit rates on mail matter passing between Newfoundland and the Domin-			
ion of Canada, from 1st April, 1886, to 31st December, 1887	294 75		
Balance of commission paid to other Countries on Money Order business	220 19		
Cost of remittances to the United States on Money Order business	13 98		
Balances still due by Postmasters upon old revenue account, on 30th June, 1889	7,926 31	00.100	00
		80,168	90
Net Revenue		\$158,186	13

PROVINCE OF NOVA SCOTIA.

EXPENDITURE BY CHEQUE, FROM PARLIAMENTARY APPROPRIATION.

	\$	cts
Conveyance of mails by land.	122,126	16
Conveyance of mails by land. do steamboats, &c. do railways.	13,808	
do railways	52,102	
Making and repairing mail bags and locks	585	90
Total Mail Service.	\$188,623	15
	64,393	
Salaries paid by cheque	1,374	
	5,945	23
Rents and taxes	5.895	74
Rents and taxes Stationery, printing and advertising Other miscellaneous disbursements paid by cheque	2,994	28
Total Expenditure by Cheque	\$269,226	

W. H. SMITHSON, Accountant.

STATEMENT OF THE REVENUE AND EXPENDITURE OF THE POST OFFICE DEPARTMENT OF CANADA. IN THE PROVINCE OF NEW BRUNSWICK, FOR THE YEAR ENDED 30th JUNE, 1889.

PROVINCE OF NEW BRUNSWICK.

REVENUE.

Balances due by Postmasters on old revenue account to 30th June, 1888 These balances, owing to the new system of accounting for the revenue, were further increased by a supplementary quarter; the revenue from which was brought to account as a separate item in the Post Office statement of last Year		\$ 5,444	ets.
75			
Postage stamps, post cards, &c., sold		146,211	
Postage paid in money, on letters		384	
Postage paid in money, on newspapers			96
Postage collected by Letter Carriers.		225	
Transit postage from Great Britain		178	
Rents of letter boxes and drawers		1,503	71
Other miscellaneous receipts		79	94
Commissions received on Money Orders		7,129	12
Profit in exchange on Money Order business with other Countries		89	00
Void Money Orders, that is, Money Orders issued between 1st July, 1886, and			
1888, payment of which had not been claimed up to 30th June, 1889		215	53
Gross Revenue		\$161,487	56
DEDUCTIONS FROM REVENUE.	\$ cts.		
Salaries, forward allowances, allowances towards rent, fuel and light, and	40 005 50		
compensation to Postmasters on Money Order business	40,225 50		
Discount to Stamp Vendors	1,083 79		
Mis-sent and dead letters	138 54		
Other miscellaneous disbursements	27 50		
Other miscellaneous disbursements Amount paid for the redemption of postage stamps.			
Other miscellaneous disbursements Amount paid for the redemption of postage stamps. Transit rates on mail matter passing through the United States for other	27 50 198 16		
Other miscellaneous disbursements Amount paid for the redemption of postage stamps.	27 50		
Other miscellaneous disbursements Amount paid for the redemption of postage stamps. Transit rates on mail matter passing through the United States for other	27 50 198 16		
Other miscellaneous disbursements Amount paid for the redemption of postage stamps. Transit rates on mail matter passing through the United States for other Countries, from 1st April, 1886, to 31st December, 1888 Transit rates on mail matter passing between Newfoundland and the Domin-	27 50 198 16		
Other miscellaneous disbursements Amount paid for the redemption of postage stamps. Transit rates on mail matter passing through the United States for other Countries, from 1st April, 1886, to 31st December, 1888. Transit rates on mail matter passing between Newfoundland and the Dominion of Canada, from 1st April, 1886, to 31st December, 1887.	27 50 198 16 4,171 40		
Other miscellaneous disbursements Amount paid for the redemption of postage stamps. Transit rates on mail matter passing through the United States for other Countries, from 1st April, 1886, to 31st December, 1888. Transit rates on mail matter passing between Newfoundland and the Dominion of Canada, from 1st April, 1886, to 31st December, 1887. Balance of commission paid to other Countries on Money Order business	27 50 198 16 4,171 40 205 90		
Other miscellaneous disbursements Amount paid for the redemption of postage stamps. Transit rates on mail matter passing through the United States for other Countries, from 1st April, 1886, to 31st December, 1888. Transit rates on mail matter passing between Newfoundland and the Dominion of Canada, from 1st April, 1886, to 31st December, 1887. Balance of commission paid to other Countries on Money Order business Cost of remittances to the United States on Money Order business	27 50 198 16 4,171 40 205 90 153 81 9 76		
Other miscellaneous disbursements Amount paid for the redemption of postage stamps. Transit rates on mail matter passing through the United States for other Countries, from 1st April, 1886, to 31st December, 1888. Transit rates on mail matter passing between Newfoundland and the Dominion of Canada, from 1st April, 1886, to 31st December, 1887. Balance of commission paid to other Countries on Money Order business	27 50 198 16 4,171 40 205 90 153 81	48,739) 68
Other miscellaneous disbursements Amount paid for the redemption of postage stamps. Transit rates on mail matter passing through the United States for other Countries, from 1st April, 1886, to 31st December, 1888. Transit rates on mail matter passing between Newfoundland and the Dominion of Canada, from 1st April, 1886, to 31st December, 1887. Balance of commission paid to other Countries on Money Order business. Cost of remittances to the United States on Money Order business. Balances still due by Postmasters upon old revenue account, on 30th June, 1889	27 50 198 16 4,171 40 205 90 153 81 9 76 2,525 32		
Other miscellaneous disbursements Amount paid for the redemption of postage stamps. Transit rates on mail matter passing through the United States for other Countries, from 1st April, 1886, to 31st December, 1888. Transit rates on mail matter passing between Newfoundland and the Dominion of Canada, from 1st April, 1886, to 31st December, 1887. Balance of commission paid to other Countries on Money Order business. Cost of remittances to the United States on Money Order business.	27 50 198 16 4,171 40 205 90 153 81 9 76 2,525 32	48,739 \$112,747	

PROVINCE OF NEW BRUNSWICK.

EXPENDITURE BY CHEQUE, FROM PARLIAMENTARY APPROPRIATION.

Conveyance of mails by land	94,734 98
Salaries paid by cheque. Travelling expenses. Tradesmen's bills Rents and taxes.	74,994 69 941 09 3,965 93
Stationery, printing and advertising Other miscellaneous disbursements paid by cheque	4,885 81 3,611 63
Total Expenditure by Cheque	\$254,110 34

W. H. SMITHSON,
Accountant.

STATEMENT OF THE REVENUE AND EXPENDITURE OF THE POST OFFICE DEPARTMENT OF CANADA, IN THE PROVINCE OF MANITOBA AND THE NORTH-WEST TERRITORIES, FOR THE YEAR ENDED 30TH JUNE, 1889.

PROVINCE OF MANITOBA AND THE NORTH-WEST TERRITORIES. REVENUE.

			_
Balances due by Postmasters on old revenue account to 30th June, 1888 These balances, owing to the new system of accounting for the revenue, were further increased by a supplementary quarter; the revenue from which was brought to account as a separate item in the Post Office statement of last Year		\$ c	ets.
2002	0,121 02	10,934	68
Postage stamps, post cards, &c., sold Postage paid in money, on letters Postage paid in money, on newspapers Postage collected by Letter Carriers Transit postage from Great Britain		174,483 3	33 54
Transit postage from Great Britain Rents of letter boxes and drawers. Other miscellaneous receipts.		212 2 2,198 (173 7	00
Commissions received on Money Orders. Profit in exchange on Money Order business with other Countries Void Money Orders, that is, Money Orders issued between 1st July, 1886, and		6,351 9 106 0	95
1888, payment of which had not been claimed up to 30th June, 1889		256 8	87
, x v			
Gross Revenue		\$196,146	21
DEDUCTIONS FROM REVENUE.			
	\$ ets.		
Salaries, forward allowances, allowances towards rent, fuel and light, and			
Salaries, forward allowances, allowances towards rent, fuel and light, and compensation to Postmasters on Money Order business	41,765 57		
Salaries, forward allowances, allowances towards rent, fuel and light, and compensation to Postmasters on Money Order business	41,765 57 764 59		
Salaries, forward allowances, allowances towards rent, fuel and light, and compensation to Postmasters on Money Order business	41,765 57 764 59 166 85		
Salaries, forward allowances, allowances towards rent, fuel and light, and compensation to Postmasters on Money Order business. Discount to Stamp Vendors Mis-sent and dead letters. Other miscellaneous disbursements	41,765 57 764 59 166 85 87 00		
Salaries, forward allowances, allowances towards rent, fuel and light, and compensation to Postmasters on Money Order business	41,765 57 764 59 166 85 87 00 236 16		
Salaries, forward allowances, allowances towards rent, fuel and light, and compensation to Postmasters on Money Order business Discount to Stamp Vendors Mis-sent and dead letters. Other miscellaneous disbursements Amount paid for the redemption of postage stamps. Transit rates on mail matter passing through the United States for other Countries, from 1st April, 1886, to 31st December, 1888 Transit rates on mail matter passing between Newfoundland and the Domin-	41,765 57 764 59 166 85 87 00 236 16 4,971 40		
Salaries, forward allowances, allowances towards rent, fuel and light, and compensation to Postmasters on Money Order business. Discount to Stamp Vendors Mis-sent and dead letters. Other miscellaneous disbursements Amount paid for the redemption of postage stamps. Transit rates on mail matter passing through the United States for other Countries, from 1st April, 1886, to 31st December, 1888	41,765 57 764 59 166 85 87 00 236 16 4,971 40		
Salaries, forward allowances, allowances towards rent, fuel and light, and compensation to Postmasters on Money Order business	41,765 57 764 59 166 85 87 00 236 16 4,971 40 245 39 183 31		
Salaries, forward allowances, allowances towards rent, fuel and light, and compensation to Postmasters on Money Order business. Discount to Stamp Vendors Mis-sent and dead letters. Other miscellaneous disbursements Amount paid for the redemption of postage stamps. Transit rates on mail matter passing through the United States for other Countries, from 1st April, 1886, to 31st December, 1888. Transit rates on mail matter passing between Newfoundland and the Dominion of Canada, from 1st April, 1886, to 31st December, 1887. Balance of commission paid to other Countries on Money Order business. Cost of remittances to the United States on Money Order business.	41,765 57 764 59 166 85 87 00 236 16 4,971 40 245 39 183 31 11 66		
Salaries, forward allowances, allowances towards rent, fuel and light, and compensation to Postmasters on Money Order business	41,765 57 764 59 166 85 87 00 236 16 4,971 40 245 39 183 31		
Salaries, forward allowances, allowances towards rent, fuel and light, and compensation to Postmasters on Money Order business. Discount to Stamp Vendors Mis-sent and dead letters. Other miscellaneous disbursements Amount paid for the redemption of postage stamps. Transit rates on mail matter passing through the United States for other Countries, from 1st April, 1886, to 31st December, 1888. Transit rates on mail matter passing between Newfoundland and the Dominion of Canada, from 1st April, 1886, to 31st December, 1887. Balance of commission paid to other Countries on Money Order business. Cost of remittances to the United States on Money Order business.	41,765 57 764 59 166 85 87 00 236 16 4,971 40 245 39 183 31 11 66	53,093 7	73
Salaries, forward allowances, allowances towards rent, fuel and light, and compensation to Postmasters on Money Order business. Discount to Stamp Vendors Mis-sent and dead letters. Other miscellaneous disbursements Amount paid for the redemption of postage stamps. Transit rates on mail matter passing through the United States for other Countries, from 1st April, 1886, to 31st December, 1888 Transit rates on mail matter passing between Newfoundland and the Dominion of Canada, from 1st April, 1886, to 31st December, 1887. Balance of commission paid to other Countries on Money Order business. Cost of remittances to the United States on Money Order business.	41,765 57 764 59 166 85 87 00 236 16 4,971 40 245 39 183 31 11 66 4,661 80	53,093 7 \$143,052 4	

PROVINCE OF MANITOBA AND THE NORTH-WEST TERRITORIES. EXPENDITURE BY CHEQUE, FROM PARLIAMENTARY APPROPRIATION.

	\$	ets.
Conveyance of mails by land	79,147	92
do steamboats, &c	77,119 349	
Total Mail Service		
Salaries paid by cheque	4,576	50
Rents and taxes	4,847	
Total Expenditure by Cheque	\$247,575	87

W. H. SMITHSON,
Accountant.

STATEMENT OF THE REVENUE AND EXPENDITURE OF THE POST OFFICE DEPARTMENT OF CANADA, IN THE PROVINCE OF BRITISH COLUMBIA, FOR THE YEAR ENDED 30th JUNE, 1889.

PROVINCE OF BRITISH COLUMBIA.

REVENUE.

\$1,212 24 721 46	Balances due by Postmasters on old revenue account to 30th June, 1888 These balances, owing to the new system of accounting for the revenue, were further increased by a supplementary quarter; the revenue from which was brought to account as a separate item in the Post Office statement of last Year.
	Postage stamps, post cards, &c., sold. Postage paid in money, on letters. Postage paid in money, on newspapers. Postage collected by Letter Carriers.
	Toward to act one from Countries
	Transit postage from Great Britain. Rents of letter boxes and drawers.
	Other miscellaneous receipts.
	Commissions received on Money Orders
	Profit in exchange on Money Order business with other Countries
30th June	Void Money Orders, that is, Money Orders issued between 1st July, 1886, and
	1888, payment of which had not been claimed up to 30th June, 1889
	Gross Revenue
\$ cts.	DEDUCTIONS FROM REVENUE.
10.004.40	Salaries, forward allowances, allowances towards rent, fuel and light, and
	compensation to Postmasters on Money Order business
	Discount to Stamp Vendors
	Mis-sent and dead letters
	Other miscellaneous disbursements
95 05	Amount paid for the redemption of postage stamps
9 000 00	Transit rates on mail matter passing through the United States for other Countries, from 1st April, 1886, to 31st December, 1888
2,000 00	Transit rates on mail matter passing between Newfoundland and the Domin-
09 76	ion of Canada, from 1st April, 1886, to 31st December, 1887
	Balance of commission paid to other Countries on Money Order business
	Cost of remittances to the United States on Money Order business
4 68	
4 68	
4 68 794 29	Balances still due by Postmasters upon old revenue account, on 30th June, 1889
	721 46 721 46 30th June, \$ cts. 13,694 46 354 75 357 476 194 25 95 05 2,000 00 98 76 73 81

PROVINCE OF BRITISH COLUMBIA.

EXPENDITURE BY CHEQUE, FROM PARLIAMENTARY APPROPRIATION.

	\$	ets.
Conveyance of mails by land	44,783	
do steamboats, &c	39,449	
do railways	40,010	
Making and repairing mail bags and locks	252	45
Total Mail Service	\$124,496	
Salaries paid by cheque	30,812	95
Salaries paid by cheque. Travelling expenses.	1,280	50
Tradesmen's bills	1,905	07
Rents and taxes	450	00
Stationery, printing and advertising	1,527	44
Other miscellaneous disbursements paid by cheque.	1,312	21
Total Expenditure by Cheque	\$161,784	73

W. H. SMITHSON,
Accountant.

STATEMENT OF THE REVENUE AND EXPENDITURE OF THE POST OFFICE DEPARTMENT OF CANADA, IN THE PROVINCE OF PRINCE EDWARD ISLAND, FOR THE YEAR ENDED 30TH JUNE, 1889.

PROVINCE OF PRINCE EDWARD ISLAND.

REVENUE.

These balances, owing to the new system of account to 30th June, 1888 These balances, owing to the new system of accounting for the revenue, were further increased by a supplementary quarter; the revenue from which was brought to account as a separate item in the Post Office statement of last	\$ 714 17	\$ cts.
Year		
		1,851 35
Postage stamps, post cards, &c., sold		30,240 55 103 02
Postage paid in money, on newspapers		3 55
Postage collected by Letter Carriers		
Transit postage from Great Britain		36 60
Rents of letter boxes and drawers		876 50
Other miscellaneous receipts	• • • • • • • • • • •	9 57 1,020 53
Profit in exchange on Money Order business with other Countries		18 29
Void Money Orders, that is, Money Orders issued between 1st July, 1886, an	d 30th June,	20 20
1888, payment of which had not been claimed up to 30th June, 1889		44 28
Gross Revenue		\$34,204 24
DEDUCTIONS FROM REVENUE.	\$ cts.	
Salaries, forward allowances, allowances towards rent, fuel and light, and		
compensation to Postmasters on Money Order business	8,216 43	
Discount to Stamp Vendors	187 10	
Mis-sent and dead letters	15 60	
Other miscellaneous disbursements. Amount paid for the redemption of postage stamps	40 71	
Transit rates on mail matter passing through the United States for other	40 11	
Countries, from 1st April, 1886, to 31st December, 1888	857 13	
Transit rates on mail matter passing between Newfoundland and the Domin-	10.00	
ion of Canada, from 1st April, 1886, to 31st December, 1887	42 30	
Balance of commission paid to other Countries on Money Order business Cost of remittances to the United States on Money Order business	$\begin{bmatrix} 31 & 60 \\ 2 & 01 \end{bmatrix}$	
Balances still due by Postmasters upon old revenue account, on 30th June, 1889	486 59	
,		9,879 47

PROVINCE OF PRINCE EDWARD ISLAND. EXPENDITURE BY CHEQUE, FROM PARLIAMENTARY APPROPRIATION.

Conveyance of mails by land	\$ 12,802 1,742 21,337 675	00 55
Salaries paid by cheque Total Mail Service. Travelling expenses Tradesmen's bills. Rents and taxes	12,965 162 896	26 79 75
Stationery, printing and advertising Other miscellaneous disbursements paid by cheque.	746 749	13
Total Expenditure by Cheque	\$52,077	86

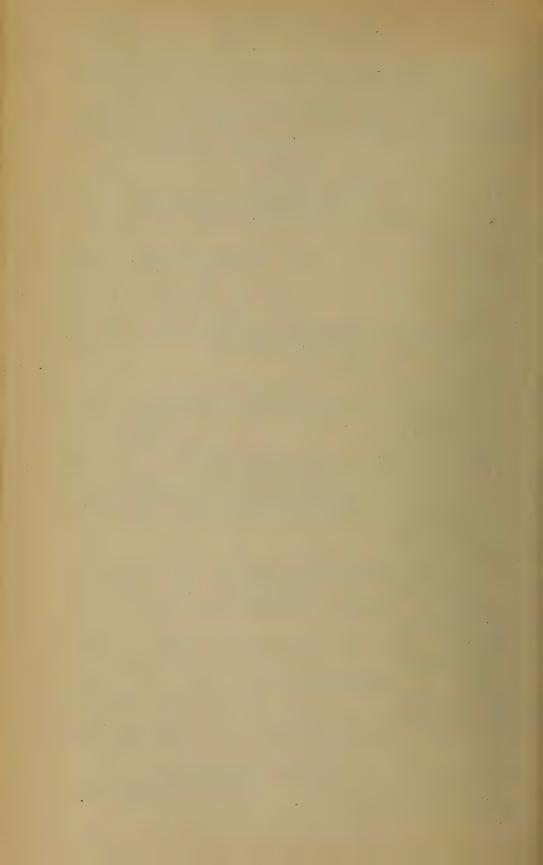
W. H. SMITHSON,
Accountant.

Memorandum of Special Mail Subsidies and Steamship Subventions disbursed through the Post Office Department, during the Fiscal Year ended 30th June, 1889.

N.B.—These amounts are not paid from the Parliamentary Appropriation for the Post Office Department, but from the special vote for Mail Subsidies and Steamship Subventions, and are brought into the Public Accounts under that heading.

		in	ips k.			
Name of Route.	Name of Contractor.	Distance Miles.	No. of Trips per Week.		Period.	Amount.
Yearly subsidy to Montreal Ocean						\$ ets.
Steamship Co.— Halifax and Liverpool, viâ Mo-						φ Cus.
ville (winter)	Andrew Allan	2,530	1)		
Quebec and Liverpool, viâ Mo- ville (summer)		2,650	1	12 mos	s. (to Mar. 31, '89)	126,533 33
Steam communication on the Mus-		2,000	-)		
koka Lakes— Ahmic Harbor, Burk's Falls and						
Gravenhurst, &c	M. & N. Nav. Co.	250	2, 3, 6	Season,	1888	4,102 50
Steam communication on Lakes Huron and Superior—						
Collingwood & Sault Ste. Marie		429	2	do		2,500 00
Owen Sound & Sault Ste. Marie Steam communication with the Mag-		.390	2	do		2,500 00
dalen Islands—						
Pictou, Magdalen Islands, Grand Entry, &c.		180	1	do		10.050.94
Steam communication between Hali-		100	1	do		10,958 34
fax and St. John, viâ Yarmouth—	1					
Halifax and St. John. viâ Yar- mouth and intermediate ports		292	6	do	,	7,500 00
Steam communication between Port						
Mulgrave and East Bay, C.B.— Port Mulgrave, East Bay and						
North Sydney, &c	B.d'Or S. Nav. Co	185	6 & 3	do		7,000 00
Steam communication between Cape Canso and Port Hood, viâ Port						
Mulgrave—						
Port Mulgrave to Canso, &c., via Arichat	R. Macdonald	95	6&2	do		5,000 00
Steam communication between Port						,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Mulgrave or Pictou Railway Terminus and Cheticamp, &c. (the						
Local Government having granted						
a similar amount)— Pictou, Port Hood, Mabou,						
Margaree and Cheticamp	F. W. Fraser	117	1	do		2,000 00
Steam communication between Hali- fax and St. Pierre—						
Halifax, Cape Breton and St.	A TO GO O	490	T02.1	10	// 3VE 04 100)	2 222 22
Pierre Miquelon Steam communication between	AF. SS. Co	439	F tiy.	12 mos.	(to Mar. 31, '89).	2,000 00
Grand Manan, N.B., & Mainland-						
Grand Manan, St. John and St. Stephen	E. Gaskill	75 & 50	1	12 do	do	4,000 00
Steam communication between the		10000		12 (10)		1,000 00
United States and Victoria, B.C Victoria, B.C. and San Fran-						
Victoria, B.C., and San Francisco, U.S	Goodall & Per-					
Steam communication between	kıns	750	1	10 do	(to June 30, '89).	14,700 00
Prince Edward Island & Mainland-						
Charlottetown, P.E.I., Shediac, N.B., and Pictou, N.S	P.E.Isl'dS.N.Co	60 & 45	4 & 6	12 do	(to Mar. 31 '89)	10,000 00
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		10 10	1.00		(10 11111111111111111111111111111111111	
			1			\$198,794 17

W. H. SMITHSON,
Accountant



PROVINCE OF ONTARIO.

Detail of all payments for Mail Transportation in Ontario made within the year ended 30th June, 1889.

Name of Route. Name of Contractor. Section Sect						
Aberdeen and Railway Station	Name of Route.	of		No. of Trips per Week.	Period.	Amount.
Aberdeen and Railway Station						P 042
Adelphustown and Bath. J. H. Roblin. 14 6 12 do 240 00 Adelphustown and Napanee. E. Galligher. 25 6 12 do 585 00 Adelphustown and Napanee. E. Galligher. 25 6 12 do 585 00 30 00 Agincourt Station and L'Amaroux. Amilian Harbor and Parry Sound. T. W. Quinn. 32 3 12 do 125 00 125	Abanadas and Dailway Station	D N Sinclain	,	e e	19 months	
Adelphustown and Bath. J. H. Roblin. 14 6 12 do 240 00 Adelphustown and Napanee. E. Galligher. 25 6 12 do 585 00 Adelphustown and Napanee. E. Galligher. 25 6 12 do 585 00 30 00 Agincourt Station and L'Amaroux. Amilian Harbor and Parry Sound. T. W. Quinn. 32 3 12 do 125 00 125	Aberdeen and Durham	L. Elvidge	118		12 do	
Adelphustown and Bath. J. H. Roblin. 14 6 12 do 240 00 Adelphustown and Napanee. E. Galligher. 25 6 12 do 585 00 Adelphustown and Napanee. E. Galligher. 25 6 12 do 585 00 30 00 Agincourt Station and L'Amaroux. Amilian Harbor and Parry Sound. T. W. Quinn. 32 3 12 do 125 00 125	Aberdour and Railway Station	G. Christie	1 4	6	12 do	70 00
Adelphustown and Bath. J. H. Roblin. 14 6 12 do 240 00 Adelphustown and Napanee. E. Galligher. 25 6 12 do 585 00 Adelphustown and Napanee. E. Galligher. 25 6 12 do 585 00 30 00 Agincourt Station and L'Amaroux. Amilian Harbor and Parry Sound. T. W. Quinn. 32 3 12 do 125 00 125	Abington and Canfield	W. Young	12		8 do (from Aug 1, '88)	103 33
Adelphustown and Bath. J. H. Roblin. 14 6 12 do 240 00 Adelphustown and Napanee. E. Galligher. 25 6 12 do 585 00 Adelphustown and Napanee. E. Galligher. 25 6 12 do 585 00 30 00 Agincourt Station and L'Amaroux. Amilian Harbor and Parry Sound. T. W. Quinn. 32 3 12 do 125 00 125	Aboyne and Elora	J. T. Taylor	$1\frac{1}{2}$		9 do (to Dec. 31, '88).	56 25
Adelphustown and Bath. J. H. Roblin. 14 6 12 do 240 00 Adelphustown and Napanee. E. Galligher. 25 6 12 do 585 00 Adelphustown and Napanee. E. Galligher. 25 6 12 do 585 00 30 00 Agincourt Station and L'Amaroux. Amilian Harbor and Parry Sound. T. W. Quinn. 32 3 12 do 125 00 125	do do	T. Godfrey	12		3 do from do	17 50
Adelphustown and Bath. J. H. Roblin. 14 6 12 do 240 00 Adelphustown and Napanee. E. Galligher. 25 6 12 do 585 00 Adelphustown and Napanee. E. Galligher. 25 6 12 do 585 00 30 00 Agincourt Station and L'Amaroux. Amilian Harbor and Parry Sound. T. W. Quinn. 32 3 12 do 125 00 125	Acton and Knatchbull	T. Wilson	5			
Adelphustown and Bath. J. H. Roblin. 14 6 12 do 240 00 Adelphustown and Napanee. E. Galligher. 25 6 12 do 585 00 Adelphustown and Napanee. E. Galligher. 25 6 12 do 585 00 30 00 Agincourt Station and L'Amaroux. Amilian Harbor and Parry Sound. T. W. Quinn. 32 3 12 do 125 00 125	Acton and Speyside	E. J. Langrill	5	2	6 do (to Sept. 30, '88).	37 50
Adelphustown and Bath. J. H. Roblin. 14 6 12 do 240 00 Adelphustown and Napanee. E. Galligher. 25 6 12 do 585 00 Adelphustown and Napanee. E. Galligher. 25 6 12 do 585 00 30 00 Agincourt Station and L'Amaroux. Amilian Harbor and Parry Sound. T. W. Quinn. 32 3 12 do 125 00 125	do do	T. Wilson	5	2		
Adelphustown and Bath. J. H. Roblin. 14 6 12 do 240 00 Adelphustown and Napanee. E. Galligher. 25 6 12 do 585 00 Adelphustown and Napanee. E. Galligher. 25 6 12 do 585 00 30 00 Agincourt Station and L'Amaroux. Amilian Harbor and Parry Sound. T. W. Quinn. 32 3 12 do 125 00 125	Addison and Bell's Station	H. S. Moffatt	81			
Way and Midland Railway. W. Lawton 5	Adelaide and Strathroy	J. Harris	$8\frac{1}{2}$	6	12 do	
Way and Midland Railway. W. Lawton 5	Adolphustown and Bath	J. H. Roblin	14			
Way and Midland Railway. W. Lawton 5	Agoincourt and Railway Station	W. Lawton	25			
Way and Midland Railway. W. Lawton 5	Agincourt Station and L'Amaroux.	R. H. Madill	4			
Allsa Craig and Railway Station. S. Hey. 5	Agincourt, Canadian Pacific Rail-	W Tamton	7	10	19 40	107 00
Allsa Craig and Railway Station. S. Hey. 5	Abmic Harbor and Parry Sound	T. W. Quinn	328			
Allsa Craig and Railway Station. S. Hey. 5	Ahmic Harbor and Wharf	S. Paul	1	3	Season 1888	21 25
Air Line Junction and Ry. Station N. Grisdale. 4	Anmie Lake and Spence	J. McCartney	9			
Albert and Marysville.	Allsa Craig and Rahway Station	J. Orr	68			
Albert and Marysville.	Air Line Junction and Ry. Station.	M. Grisdale	1	6	12 do	40 00
Alexandria and St. Raphael West. J. McDougall. 17 6 12 do 325 00 Alexandria and Vankleek Hill. A. Mercier 19 6 12 do 350 00 Alfred and Montebello L. Larocque 9 6 12 do 200 00 Algoma Mills and Railway Station H. F. McQuire. 4 6 Season 1888-89 23 40 Allandale and Holly W. Amstrey 3 6 12 do 115 00 Allandale and Painswick W. Thompson 3½ 6 12 do 150 00 Allandale and Railway Station M. J. Hamlin \$ 36 12 do 150 00 Allen Park and Hampden H. Byers 5 2 12 do 150 00 Allen Park and Lamlash E. Earls 5 3 12 do 10 00 Allenford and Sailway Station J. Dean 132 6 12 do <td>Albert and Marysville</td> <td>P. Sullivan</td> <td>9</td> <td></td> <td></td> <td></td>	Albert and Marysville	P. Sullivan	9			
Alexandria and St. Raphael West. J. McDougall. 17 6 12 do 325 00 Alexandria and Vankleek Hill. A. Mercier 19 6 12 do 350 00 Alfred and Montebello L. Larocque 9 6 12 do 200 00 Algoma Mills and Railway Station H. F. McQuire. 4 6 Season 1888-89 23 40 Allandale and Holly W. Amstrey 3 6 12 do 115 00 Allandale and Painswick W. Thompson 3½ 6 12 do 150 00 Allandale and Railway Station M. J. Hamlin \$ 36 12 do 150 00 Allen Park and Hampden H. Byers 5 2 12 do 150 00 Allen Park and Lamlash E. Earls 5 3 12 do 10 00 Allenford and Sailway Station J. Dean 132 6 12 do <td>Albion and Railway Station</td> <td>Q. D. Elliott</td> <td>1 1</td> <td></td> <td></td> <td></td>	Albion and Railway Station	Q. D. Elliott	1 1			
Alexandria and St. Raphael West. J. McDougall. 17 6 12 do 325 00 Alexandria and Vankleek Hill. A. Mercier 19 6 12 do 350 00 Alfred and Montebello L. Larocque 9 6 12 do 200 00 Algoma Mills and Railway Station H. F. McQuire. 4 6 Season 1888-89 23 40 Allandale and Holly W. Amstrey 3 6 12 do 115 00 Allandale and Painswick W. Thompson 3½ 6 12 do 150 00 Allandale and Railway Station M. J. Hamlin \$ 36 12 do 150 00 Allen Park and Hampden H. Byers 5 2 12 do 150 00 Allen Park and Lamlash E. Earls 5 3 12 do 10 00 Allenford and Sailway Station J. Dean 132 6 12 do <td>Albion, Castlederg and Mount Wolfe</td> <td>S. J. Snell</td> <td>6&5</td> <td>6&3</td> <td>12 do</td> <td>260 00</td>	Albion, Castlederg and Mount Wolfe	S. J. Snell	6&5	6&3	12 do	260 00
Alexandria and St. Raphael West. J. McDougall. 17 6 12 do 325 00 Alexandria and Vankleek Hill. A. Mercier 19 6 12 do 350 00 Alfred and Montebello L. Larocque 9 6 12 do 200 00 Algoma Mills and Railway Station H. F. McQuire. 4 6 Season 1888-89 23 40 Allandale and Holly W. Amstrey 3 6 12 do 115 00 Allandale and Painswick W. Thompson 3½ 6 12 do 150 00 Allandale and Railway Station M. J. Hamlin \$ 36 12 do 150 00 Allen Park and Hampden H. Byers 5 2 12 do 150 00 Allen Park and Lamlash E. Earls 5 3 12 do 10 00 Allenford and Sailway Station J. Dean 132 6 12 do <td>Albumy and Rednersville</td> <td>E. S. Irwin</td> <td>64</td> <td>2</td> <td>12 do</td> <td>72 72</td>	Albumy and Rednersville	E. S. Irwin	64	2	12 do	72 72
Alexandria and St. Raphael West. J. McDougall. 17 6 12 do 325 00 Alexandria and Vankleek Hill. A. Mercier 19 6 12 do 350 00 Alfred and Montebello L. Larocque 9 6 12 do 200 00 Algoma Mills and Railway Station H. F. McQuire. 4 6 Season 1888-89 23 40 Allandale and Holly W. Amstrey 3 6 12 do 115 00 Allandale and Painswick W. Thompson 3½ 6 12 do 150 00 Allandale and Railway Station M. J. Hamlin \$ 36 12 do 150 00 Allen Park and Hampden H. Byers 5 2 12 do 150 00 Allen Park and Lamlash E. Earls 5 3 12 do 10 00 Allenford and Sailway Station J. Dean 132 6 12 do <td>do do</td> <td>G. Rose</td> <td>4</td> <td></td> <td>3 do from do</td> <td>18 75</td>	do do	G. Rose	4		3 do from do	18 75
Alexandria and St. Raphael West. J. McDougall. 17 6 12 do 325 00 Alexandria and Vankleek Hill. A. Mercier 19 6 12 do 350 00 Alfred and Montebello L. Larocque 9 6 12 do 200 00 Algoma Mills and Railway Station H. F. McQuire. 4 6 Season 1888-89 23 40 Allandale and Holly W. Amstrey 3 6 12 do 115 00 Allandale and Painswick W. Thompson 3½ 6 12 do 150 00 Allandale and Railway Station M. J. Hamlin \$ 36 12 do 150 00 Allen Park and Hampden H. Byers 5 2 12 do 150 00 Allen Park and Lamlash E. Earls 5 3 12 do 10 00 Allenford and Sailway Station J. Dean 132 6 12 do <td>Aldboro' and Rodney</td> <td>N. Gray</td> <td>6</td> <td></td> <td>12 do</td> <td>144 00</td>	Aldboro' and Rodney	N. Gray	6		12 do	144 00
Alexandria and St. Raphael West. J. McDougall. 17 6 12 do 325 00 Alexandria and Vankleek Hill. A. Mercier 19 6 12 do 350 00 Alfred and Montebello L. Larocque 9 6 12 do 200 00 Algoma Mills and Railway Station H. F. McQuire. 4 6 Season 1888-89 23 40 Allandale and Holly W. Amstrey 3 6 12 do 115 00 Allandale and Painswick W. Thompson 3½ 6 12 do 150 00 Allandale and Railway Station M. J. Hamlin \$ 36 12 do 150 00 Allen Park and Hampden H. Byers 5 2 12 do 150 00 Allen Park and Lamlash E. Earls 5 3 12 do 10 00 Allenford and Sailway Station J. Dean 132 6 12 do <td>Aldershot and Waterdown</td> <td>J. Simmons</td> <td>3</td> <td></td> <td></td> <td></td>	Aldershot and Waterdown	J. Simmons	3			
Alexandria and Vankleek Hill. A. Mercier 19 6 12 do 350 00 Alfred and Montebello L. Larocque 9 6 12 do 200 00 Algoma Mills and Railway Station H. F. McQuire 4 6 Season 1888-89 23 40 Allandale and Holly W. Livingston ½ 12 lz months 94 00 Allandale and Painswick W. Thompson 3½ 6 lz do 150 00 Allandale and Railway Station M. J. Hamlin ½ 36 lz do 150 00 Allen Park and Hampden H. Byers 5 2 lz do 70 00 Allen Park and Lamlash E. Earls 5 3 lz do 110 00 Allenford and Owen Sound T. N. Williamson 13¾ 6 lz do 120 00 Allenford and Railway Station J. Dean ½ 12 lz do 124 80 Allenford and Saugeen W. Gilbert 11 6 lz do 245 00 Allenford and Skipness J. Davidson ½ 2 lz do 75 00 Allensville and Catching Post J. McNicol <t< td=""><td></td><td></td><td></td><td>24</td><td>12 do</td><td></td></t<>				24	12 do	
Allenwood and Elmvale. J. G. Dickinson. 5 3 2 2 60 110 00 Allenwood and Gibson. do 3 2 12 do 45 00 Alliston ville and Consecon. G. Pine. 8 3 12 do 150 00 Alliston and Elm Grove. S. Berridge. 14 r. t. 6 12 do 300 00 Alliston and Elm Grove. T. Langley 1 1 12 do 40 40	Alexandria and St. Raphael West	J. McDougall	17		12 do	
Allenwood and Elmvale. J. G. Dickinson. 5 3 2 2 60 110 00 Allenwood and Gibson. do 3 2 12 do 45 00 Alliston ville and Consecon. G. Pine. 8 3 12 do 150 00 Alliston and Elm Grove. S. Berridge. 14 r. t. 6 12 do 300 00 Alliston and Elm Grove. T. Langley 1 1 12 do 40 40	Alfred and Montehello	A. Mercier Larocque	19			
Allenwood and Elmvale. J. G. Dickinson. 5 3 2 2 60 110 00 Allenwood and Gibson. do 3 2 12 do 45 00 Alliston ville and Consecon. G. Pine. 8 3 12 do 150 00 Alliston and Elm Grove. S. Berridge. 14 r. t. 6 12 do 300 00 Alliston and Elm Grove. T. Langley 1 1 12 do 40 40	Algoma Mills and Railway Station.	H. F. McQuire	1/4	6	Season 1888-89	23 40
Allenwood and Elmvale. J. G. Dickinson. 5 3 2 2 60 110 00 Allenwood and Gibson. do 3 2 12 do 45 00 Alliston ville and Consecon. G. Pine. 8 3 12 do 150 00 Alliston and Elm Grove. S. Berridge. 14 r. t. 6 12 do 300 00 Alliston and Elm Grove. T. Langley 1 1 12 do 40 40	Allanburg and Railway Station	W. Livingston	2			
Allenwood and Elmvale. J. G. Dickinson. 5 3 2 2 60 110 00 Allenwood and Gibson. do 3 2 12 do 45 00 Alliston ville and Consecon. G. Pine. 8 3 12 do 150 00 Alliston and Elm Grove. S. Berridge. 14 r. t. 6 12 do 300 00 Alliston and Elm Grove. T. Langley 1 1 12 do 40 40	Allandale and Painswick	W. Amstrey W. Thompson	3±		12 do	
Allenwood and Elmvale. J. G. Dickinson. 5 3 2 2 60 110 00 Allenwood and Gibson. do 3 2 12 do 45 00 Alliston ville and Consecon. G. Pine. 8 3 12 do 150 00 Alliston and Elm Grove. S. Berridge. 14 r. t. 6 12 do 300 00 Alliston and Elm Grove. T. Langley 1 1 12 do 40 40	Allandale and Railway Station	M. J. Hamlin	1 8	36	114 (10)	150 00
Allenwood and Elmvale. J. G. Dickinson. 5 3 2 2 60 110 00 Allenwood and Gibson. do 3 2 12 do 45 00 Alliston ville and Consecon. G. Pine. 8 3 12 do 150 00 Alliston and Elm Grove. S. Berridge. 14 r. t. 6 12 do 300 00 Alliston and Elm Grove. T. Langley 1 1 12 do 40 40	Allen Park and Hampden	H. Byers	5		12 do	70 00
Allenwood and Elmvale. J. G. Dickinson. 5 3 2 2 60 110 00 Allenwood and Gibson. do 3 2 12 do 45 00 Alliston ville and Consecon. G. Pine. 8 3 12 do 150 00 Alliston and Elm Grove. S. Berridge. 14 r. t. 6 12 do 300 00 Alliston and Elm Grove. T. Langley 1 1 12 do 40 40	Allenford and Owen Sound	T. N. Williamson	133		12 do	120 00
Allenwood and Elmvale. J. G. Dickinson. 5 3 2 2 60 110 00 Allenwood and Gibson. do 3 2 12 do 45 00 Alliston ville and Consecon. G. Pine. 8 3 12 do 150 00 Alliston and Elm Grove. S. Berridge. 14 r. t. 6 12 do 300 00 Alliston and Elm Grove. T. Langley 1 1 12 do 40 40	Allenford and Railway Station	J. Dean	1 2	12	12 do	124 80
Allenwood and Elmvale. J. G. Dickinson. 5 3 2 2 60 110 00 Allenwood and Gibson. do 3 2 12 do 45 00 Alliston ville and Consecon. G. Pine. 8 3 12 do 150 00 Alliston and Elm Grove. S. Berridge. 14 r. t. 6 12 do 300 00 Alliston and Elm Grove. T. Langley 1 1 12 do 40 40	Allenford and Saugeen	W. Gilbert	11			
Allenwood and Elmvale. J. G. Dickinson. 5 3 2 2 60 110 00 Allenwood and Gibson. do 3 2 12 do 45 00 Alliston ville and Consecon. G. Pine. 8 3 12 do 150 00 Alliston and Elm Grove. S. Berridge. 14 r. t. 6 12 do 300 00 Alliston and Elm Grove. T. Langley 1 1 12 do 40 40	Allensville and Catching Post	J. McNicol	42			
Allenwood and Elmvale. J. G. Dickinson. 5 3 2 2 60 110 00 Allenwood and Gibson. do 3 2 12 do 45 00 Alliston ville and Consecon. G. Pine. 8 3 12 do 150 00 Alliston and Elm Grove. S. Berridge. 14 r. t. 6 12 do 300 00 Alliston and Elm Grove. T. Langley 1 1 12 do 40 40	Allensville and Utterson	do	4	3	12 do	54 60
Allisonville and Consecon. G. Pine. 8 3 12 do 150 00	Allenwood and Elmvale	J. G. Dickinson.	l b	3		
Alliston and Elm Grove. S. Berridge. 14 r. t. 6 12 do 300 00 Alliston and Railway Station. T. Langley. ½ 12 12 12 do 49 00 Alliston and Rosemont. do 9 6 12 do 270 00 Alloa and Edmonton. W. Goulding. 6 3 12 do 90 00 Allsaw and Minden. D. Burk. 10 2 12 do 140 00	Allisonville and Consecon.	G. Pine	8	3		
Alliston and Rallway Station T. Langley ½ 12 12 do 49 00 Alliston and Rosemont do 9 6 12 do 270 00 Alloa and Edmonton W. Goulding 6 3 12 do 90 00 Allsaw and Minden D. Burk 10 2 12 do 140 00	Alliston and Elm Grove	S. Berridge	14 r. t.	6	12 do	300 00
Alloa and Edmonton W. Goulding. 6 3 12 do 90 00 Allsaw and Minden D. Burk 10 2 12 do 140 00	Alliston and Railway Station	T. Langley	02		12 do	
Allsaw and Minden	Alloa and Edmonton	W. Goulding	6	3	12 do	
7 7	Allsaw and Minden	D. Burk	10	2	12 do	140 00

	Name	se in	Trips /eek.				
Name of Route.	of Contractor.	Distance in Miles.	No. of 7			Period.	Amount.
		A	Z =				
Alma and Railway Station	J. H. Walker.	$\frac{1}{2}$	12	12	mon	ths	\$ ets.
Alma and Winfield	J. Wattin	8	3	12	do		130 00
Almonte and Clayton	A. Barnett	10 & 12	6	12			225 00
Almonte and Railway Station Almonte and West Huntley	E. Dowdall	$12^{\frac{1}{4}}$	24	$\frac{12}{12}$	do		164 11 196 00
Alport and Bracebridge	H. F. Bickmore.	4	3	12	do		117 00
Alsfeldt and Railway Station	H. Ziegler	14	6	12	do		100 00
Althorpe and Maberly		9	2	3	do	(to June 30, '88).	22 50
do do	J. W. Morris	9	$\frac{2}{12}$	9	do	from do	63 36 96 72
Allvinston and Railway Station		1	. 12	12	do		85 00
Amaranth Station and Ry. Station. Amberley and Kincardine	J. Lacon	1 8	6	12	do		40 00
Amberley and Kincardine	J. Bayne	14	6	12	do	10.2 T	298 00
Amberley and Kintail	T. Elson	6	6	2	do	10 dys.(from Jan.) 22, '89)	38 23
Amberley and Lochalsh	J. McLennan	4	3	6	do	(to Sept. 30, '88).	42 00
Amberley and Lurgan	J. McGrindle	41/2	3	12	do	<u>.</u>	80 00
Ameliasburg and Belleville		10	6	$\frac{12}{12}$	do		400 00
Amherstburg and Oxley Amherstburg and Railway Station	A. Emot	19	$\frac{6}{12}$	12	do		475 00 218 40
Amherstburg and Windsor		18	3&6	12	do		391 75
Amiens and Lobo	R. Sharpe	$12\frac{1}{8}$	3	12	do		116 96
Amigari and Railway Station	A. B. Hurrell	_ 18	12	12	do		65 00
Ancaster and Hamilton	W. M. Elliot	15	$\frac{12}{2}$	$\frac{12}{12}$	do		$\begin{array}{c} 224 & 00 \\ 250 & 00 \end{array}$
Angus and Essa Centre	J. M. Coulson	6	2	12	do		80 00
Angus and Ra'lway Station	W. J. Smith	닇	12	12	do		60 00
Anson and Kailway Station	A. McMullen	50 yds	6	12	do	(L. T. BO 100)	25 00
Ansonia and Thessalon	J. B. Dobie	$\frac{8}{\frac{1}{2}}$	1 6	3	do	(to June 30, '88).	16 25 110 00
Antioch and Grassmere	F. Widdiss	102	1	12	do		52 00
Appin and Glen Willow	J. M. Cameron.	53	3	3	do	(to June 30, '88).	22 50
do do	J. Reilly	534	3	9	do	from do	67 50
Appleby and Railway Station	J. E. Campbell .	43	3 6	12 12	cb		$100 00 \\ 82 00$
Appledore and Railway Station	O. B. Arnold	$2\frac{1}{2}$	2	12	do		64 48
Appleton and Carleton Place	J. G. Munro	$4\frac{1}{2}$	12	6	do	(from Oct. 1, '88)	147 21
Appleton and Railway Station Apsley and Cheddar	do	434		6	do	(to Sept. 30, '88).	157 50
Angley and Laggwade	do	21	1 1	$\frac{12}{12}$	do do		$180 00 \\ 52 00$
Apsley and Lasswade	do		3	12	do		550 00
Apsley and Peterboro'	H. O'Neill	6	6	12	do		. 180 00
Archer and Boucks Hill	R. S. Weagant.	9 9	3	$\begin{vmatrix} 3 \\ 9 \end{vmatrix}$	do	(to June 30, '88).	28 00
do do	T. Archer		3 6	12	do do	from do	84 00 80 00
Ardagh and Commanda	J. Driver	9	1	3	do	(to June 30, '88).	17 50
Ardagh and Golden Valley	G. Dobbs	5	1	3	do	do	6 25
Arden and Railway Station	J. W. Babcock.	$\frac{1}{201}$	6 3	12 12	do		$75 00 \\ 190 00$
Arden and Tamworth	W Blair	9	3	12	do do		160 00
Arkona and Keyser	W. J. Evans	51	2	12	do		75 00
Arkona and KeyserArkona and Thedford	W. Hester	$7\frac{1}{2}$		12	do		140 00
Arkona and Watford	F. Hooper	12	$\frac{6}{2}$	12	do	(to Sont 20 198)	450 00 25 00
Arkwright and Mount Hopedo	W. F. Sithes	34 34	2	6	_do	(to Sept. 30, '88). from do .	35 00
Armadale and Unionville	J. Webber	54	3	3	do	(to June 30, '88).	25 00
do do	MR Hemingway	$5\frac{1}{4}$	3	9	do	from do .	67 11
Armow and Kincardine		11	3 2	12 12	do do		$170 00 \\ 75 00$
Armstrong's Mills and Guelph	W. G. Murray	8		12	do		60 00
Arnott and Railway Station Arnprior and Fitzroy Harbor	W. A. Shirreff.	12	6	9	do		258 75
do do	H. Somerville	12	6	3	do		68 50
4 00 00	TT TT		0.	40	1		171
Amprior and Railway Station Amprior and White Lake	H. Hatton		24	$\frac{12}{12}$	do do		$17472 \\ 27500$

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
						\$ cts.
Arthur and Metz	J. R. Bell	6	2	7 mo	nths (to Oct. 31, '88)	46 66
do do	R. J. Williams	6	2	5 de	from do	33 33
Arthur and Monek	W. Hamilton	13	2	12 de		170 00
Arthur and Railway Station Arva and Ballymote	J.H. Shoebottom	$\frac{1}{3}$	$\frac{24}{2}$	12 de 12 de		$125 00 \\ 65 00$
Ash and Railway Station	W. H. Dorland.	1	6	12 d		35 00
Ashdad and Railway Station Ashdad Railway Station and Sheedy	S. Felletor	91	3 3	12 de 1	o (from Mar. 1, '89)	$\begin{array}{c} 25 & 00 \\ 12 & 50 \end{array}$
Ashdown and Bear Cove	H. Bishton	82	1	12 d		40 00
Ashdown and Turtle Lake	A. H. Ashdown.			12 d	0	60 00
Ashdown and West Grove Ashgrove and Georgetown	M. E. West	4 4	$\begin{vmatrix} 1 \\ 6 \end{vmatrix}$		o	$\frac{40\ 00}{225\ 00}$
Ashley and Rockford Station	G Follis	13)	50 00
Ashton and Prospect Ashton and Railway Station.	W. Burrows	11	3	12 de		235 00
Ashton and Railway Station Atherley and Railway Station	H. S. Conn	2	$\frac{6}{12}$	12 de 12 de		$100 00 \\ 160 00$
Atherton and Delhi	G. C. Wilson	3	2	9 de		33 75
do do	A. Wilson	3	2	3 de		11 25
Athlone and Tottenham	S. E. Turner	$17\frac{1}{2}$	6 12	12 de 12 de		$\frac{220\ 00}{78\ 24}$
Atwood and Mitchell	J. McKov	17	6	12 de		432 00
Atwood and Railway Station	D. Gordon	0 0 0	6	12 de		52 00
Auburn and Blyth, &c	W. J. Moore	6 & 92	6 & 3	2 de 10 de		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
do do Aughrim and Bothwell	R. J. Armstrong	10	6	9 de		216 75
do do	W. McAlpine	10	6	3 de		62 25
Aughrim and Mossidedo do do	J. McCabe	6	3 3	9 de		$\begin{array}{c} 63 \ 00 \\ 25 \ 00 \end{array}$
Auguston and Horning's Mills Aultsville and Bush Glen	W. August	3	2	12 de		23 00
Aultsville and Bush Glen	G. Bush	9	$\frac{2}{6}$	12 de		00 00
Autrora and Railway Station	D. W. Doan	3	24	12 de 12 de		$\begin{array}{ccc} 72 & 00 \\ 120 & 00 \end{array}$
Aurora and Railway Station Aurora and Schomberg	H. Isaacs		6	9 d	o (to Dec. 31, 88).	336 00
do do	E. Ashberry	15	$\frac{6}{3}$	3 de		112 00
Avening and Railway Station	J. Pingle	3	12	12 de		150 00 $120 00$
Avon, Putnam and Railway Station	J. A. Kinnee	6°	6&12	12 de		350 00
Avonry and Wilkesport	J. Burden	$\frac{2\frac{1}{2}}{7}$	$\frac{2}{1}$	12 de 12 de		40 00
Aylmer and Dorchester Station	R. Learn	20	6	12 d		40 00 400 00
Aylmer and Dunboyne	W. S. Pierce	31	6	12 d	o	500 00
Aylmer and Railway Station Aylmer and Seville	B C Wright	$\frac{3}{4}$	24	12 de 12 de		$\frac{312}{48} \frac{00}{00}$
Ayr and Railway Station	W. Hilborn			12 de		199 04
Ayton and Railway Station	H. Ringel	$\frac{1}{23}$	12	12 de		90 00
Baby's Point and Port Lambton	W H McDonald	1	3	12 de	D	50 00
Baden and Wellesley	C. Harefeld	9	6	12 de		350 00
Badgeros and McIntyre	N. D. McKinnon	$\frac{3^{3}}{4}$	3	7 de		35 00
Bagot and BurnstownBainsville and Railway Station	D. McCuaig	5	3 6	$\begin{vmatrix} 6 & do \\ 12 & do \end{vmatrix}$		40 00 50 00
Bala and Glen Orchard	N. Orchard	8	2	6 de	o (to Sept. 30, '88).	51 60
do do	T White	8			o from do	16 15
Bala and Sahanatian. Baldwin and Railway Station.	L. Grylls	9	$\frac{1}{12}$	12 de 12 de		50 00 50 25
Ballantrae and Railway Station	R. Hill	4	12	12 de	o	60 00
Ballantyne's Station and Ry. Station	J. Hysop	1 2	$\frac{2}{6}$	12 d		26 00
Ballinafad and Georgetown Ballinvilla and South March	P. Orchard	4	2	12 de 12 de		250 00 40 00
Balsam Grove and Fenelon Falls	J. Copp	6	2	12 d	o	85 00
Balsam Lake and Victoria Road Bamberg and St. Agatha	J. Cunningham	4 51	$\begin{bmatrix} 2\\2\\2\\2 \end{bmatrix}$	12 de 12 de		$72 00 \\ 72 00$
Banbury and Haldane Hill	J. Barry	6	1	3 d		6 25
Banbury and Sprucedale	D do	6	1	9 d	o from do	33 75
Bancroft and Cheddar	B. H. Sweet	21	1	12 d	0	125 00

Contractor.						
Bancroft and Pandash Lake	Name of Route.	of	Distance in Miles.	No. of Trips per Week.	Period.	Amount.
A	Bancroft and Pandash Lake Banda and Glencairn Banda and Glencairn Banda and Scarlet Hill Banks and Collingwood Bandosville and Falkenburg Barkaway and Germania Barkerton and Commanda Barkerton and Commanda Barkerton and Railway Station do do do Bark Lake and Brudenell do do do Bark Lake and Murchison do do do Bark Lake and Murchison Barrie and Hillsdale Barrie and Hillsdale Barrie and Railway Station. Barrie and Kingston Barrie and Warf Barriefield and Kingston Barrie Island and Gore Bay do do Bar River and Garden River Barryvale and Railway Station. Basin Depot and Eganville Bath and Railway Station. Bath and Stella Batteau and Railway Station Battel Hall and Cooper's Falls Bayfield, Seaforth and Ry. Station Bayfield, Seaforth and Ry. Station Bayside and Belleville Baysville and Bracebridge Baysville and Maple Ridge Baysville and Maple Ridge Baysville and Menomonee do do	Contractor. J. McLellan do J. D. Carveth. E. Lennox W. Johnson S. McEwen. C. Bard S. McCord. R. Barrett N. McEachern M. Corkery. T. Cuthbertson. J. Billings J. Taylor B. Reynolds. T. Culbertson. C. Davis. G. G. Smith. W. H. Crosby M. Murphy. W. H. Crosby M. Murphy. W. H. Crosby J. Ryan. H. L. McLean W. N. Runnalls. J. Evoy P. Barry. R. Reeves W. Aylesworth. A. Stevenson W. Bourchier A. Ferguson. A. Cooper R. Beattie D. Hay. W. H. Cook. W. B. Wemp F. Sander G. F. Marsh. J. Garrison I. Williams. F. M. Williams. F. M. Williams. F. M. Williams.	$\begin{array}{c} 11\\ 11\\ 11\\ 2\frac{1}{3}\\ 8^2\\ 8^2\\ 8^2\\ 8^2\\ 16\\ 6^{\frac{1}{3}}\\ 6^{\frac{1}{3}}\\ 2^{\frac{1}{2}}\\ 2^2\\ 22\\ 22\\ 17\\ 17\\ 21\\ 16\\ 5\\ \dots\\ 1\frac{1}{2}\\ 15\\ 150 \text{ yd}\\ 49\\ 3\frac{1}{3}\\ 6^{\frac{1}{3}}\\ 6^{\frac{1}{3}}\\ 6^{\frac{1}{3}}\\ 6^{\frac{1}{3}}\\ 16\\ 10\\ 12^{\frac{1}{2}}\\ 15\\ 20\\ 0\\ 8\\ 16\\ 6\\ 8\\ 5\\ 5\\ \end{array}$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	6 months (to Sep. 30, '88) 6 do from do 12 do 12 do 12 do 12 do 13 do 14 do 15 do 16 do (to Dec. 31, '88) 16 do from do 17 do 18 do 19 do (to Dec. 31, '88) 19 do 10 do 10 do 11 do 11 do 12 do 12 do 13 do from do 14 do 15 do 16 do (to Sept. 30, '88) 17 do 18 do 19 do 19 do 10 do 10 do 11 do 12 do 12 do 13 do 14 do 15 do 16 do (to Sept. 30, '88) 16 do from do 17 do 18 do 19 do 19 do 10 do 10 do 10 do 11 do 12 do 12 do 13 do 14 do 15 do 16 do 17 do 18 do 18 do 19 do 19 do 10 do 10 do 10 do 11 do 12 do 12 do 13 do 14 do 15 do 16 do 17 do 18 do 18 do 19 do 19 do 10 do 10 do 10 do 11 do 12 do 12 do 13 do 14 do 15 do 16 do 17 do 18 do 18 do 19 do 19 do (from July1, '88) 10 months (to Jan. 31, '89) 2 do 2 do 3 do 4	\$ cts. 25 00 25 00 170 00 75 00 107 50 60 00 48 00 75 00 395 00 14 50 50 00 60 00 95 00 275 00 95 66 91 66 75 00 2 50 300 00 148 00 332 31 46 96 139 48 50 00 202 50 97 50 395 00 300 00 148 00 332 31 46 96 139 48 50 00 202 50 97 50 395 00 300 00 100 00 31 00 41 67 8 33
Beachburg and Westmeath	Bearbrook and Canaan Bearbrook and Railway Crossing.	J. B. Grobb R. Bowden	5 19 r. t.	6 6 6 3 6 3	12 do	180 00 140 00 225 00 200 00 100 00 42 00
Beaverton and Railway Station	Becher and Wallaceburg. Beckstead and Dunbar Bedford Mills and Newboro'. Beechwood and Seaforth. do do Beeton and Railway Station. Belfast and Lanes. Belfast and St. Helen's. Belfountain and Railway Station Belgrave and Bushfield Belgrave and Marnoch Belgrave and Railway Station.	J. R. McDonald. A. G. Colquhoun J. Woodman. J. J. McKenna. G. K. Holland H. E. Kinsey J. Mullin. do M. G. Byam J. Newcombe P. Porterfield S. Morley	$\begin{array}{c} 5 \\ 13 \\ 6 \\ 6\frac{1}{4} \\ 6\frac{1}{4} \\ 2\frac{1}{4} \\ 1\frac{1}{2} \\ 6 \\ 3\frac{3}{4} \\ 1\frac{1}{2} \end{array}$	3 3 3 2 2 12 2 6 6 6 2 3 12	12 months 12 do 12 do 13 do 14 do 15 do 16 do 17 do 18 do 18 do 19 do 10 do 110 do 1110 do 1110 do 11110 do	150 00

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
						\$ ets.
Belleville and Belleville Station	II W Comb	11	10	10	the 11 dry /frame	φ Cus.
Benevine and Benevine Station	II. W. Cronk	14	12	10 moi	oths 11 dys. (from May 21, '88)	64 71
Belleville and Bridgewater	J. Campbell, jr.	30	6	12 do	• • • • • • • • • • • • • • • • • • • •	800 00
Belleville and MadocBelleville and Railway Station	H W Cronk	$\frac{27}{1\frac{1}{4}}$	$\frac{6}{24}$			$\frac{460\ 00}{312\ 00}$
Belleville and Sidney Crossing Belleville and Street Letter Boxes	W. Vandervoort	$6\frac{1}{2}$	2		• • • • • • • • • • • • • • • • • • • •	80 00
Belleville and Street Letter Boxes	H. W. Cronk	5	12			250 00
Belleville and Wallbridge Bell Ewart and Lefroy Station	A. Munro	$\frac{9}{1}$	$\frac{3}{12}$	12 do 3 do	(to June 30, '88)	$\begin{array}{cccc} 110 & 00 \\ 20 & 00 \end{array}$
do _ do	F. McKay	1	12	9 do	from do	60 00
Bell Ewart and Roach's Point	T. Ellis.	2	6	Season	, 1888	70 76
Belmont and London	J. Evans	13	$\frac{6}{12}$	$\frac{12 \text{ mon}}{12 \text{ do}}$	ths	$\begin{array}{ccc} 145 & 00 \\ 69 & 00 \end{array}$
Belmont and Railway Station Belton and Railway Station	J. Gibson	1218	12	12 do		40 00
Belton and St. Ives	H. Powell	95	2			117 76
Belwood and Craigsholme	do	3 7½	$\frac{3}{2}$			$60 \ 00 \ 71 \ 00$
Belwood and Dracon. Belwood and Railway Station Bendale and Woburn	do	$\frac{1}{2}$	12	12 do		65 00
Bendale and Woburn	J. Chester, Ex'r.	2	6	9 do	(to Dec. 31, '88).	60 00
do do	J. Yeoman J. Miller	$\frac{2}{6}$	6 3	3 do 12 do	from do	20 00 150 00
Benoit's Mills and Nosbonsing	E. Benoit	6	3	7 do	18 days (from	
		=	9	10 1.	Aug. 14, '88)	31 52
Bensfort and South Monaghan Bentpath and Dresden	McLachlin	5 6	$\frac{3}{2}$	12 do 12 do		75 00 50 00
Berkeley and Glascott	R. English	6	2	12 do		84 00
Berkeley and Glascott Berkeley and Railway Station Berlin and Crosshill	J. Lund	107	6		• • • • • • • • • • • • • • • • • • • •	80 00 390 00
Berlin and Glen Allan	1. Hunt	$\frac{16\frac{1}{2}}{24}$	6			317 00
Berlin and Street Letter Boxes	H. Bachman	4	18	12 do		200 00
Berlin and West Montrose Berriedale and Denville		$\frac{14\frac{1}{2}}{5}$	6 3	12 do 6 do	(from Oct. 1, '88)	375 00 58 50
Berriedale and Hartfell	J. Duke	8	2	6 do	from do	74 50
Berriedale and Railway Station	J. A. Crawford	11	3	6 do	from do	19 50
Bethany and Railway Station Bethel and The Corners	U. M. Kelly	16	$\frac{12}{6}$	12 do 6 do	(to Sept. 30, '88).	$90\ 00$ $16\ 25$
do do	R. Robinson	4	6		from do	20 00
Bewdley and Millbrook		11	6	12 do		350 00
Big Point and Dover South	F. W. Johnson.	100 yd	$\frac{12}{2}$	8 do 12 do	(from Aug 1, '88)	20 00 57 50
Billings Bridge and Ottawa	S. Davidson	3	6	12 do		150 00
Binbrook and Glanford Station	R. Wickett	5	6	9 do	(to Dec. 31, '88)	133 50
do do	A. Wickett W Wanshorough	5 4½	$\frac{6}{2}$		from do	44 50 70 00
Binkham and Erin Birdsalls and Railway Station	J. Lancaster	1 12	$\frac{2}{6}$	12 do		4 00
Rinds Crook and Hybla	A Sutherland	1 5 1	1	12 do		35 00
Birr and Devizes, &cdo do do Biscotasing and Railway Station do Bishop's Mills and Prescott.	J. Lambourne.	5 & 7	6 & 2 6 & 2		(to June 30, '88). from do	$67 50 \\ 165 00$
Biscotasing and Railway Station	J. Stuart	50 ft.	12	9 do	(to Dec. 31, '88)	11 75
do do	P. J. Finlan	50 ft.	12	3 do	from do	$\begin{array}{c} 3 & 85 \\ 255 & 00 \end{array}$
Dissett s Creek and Danway Station	O. H. DICKSOB.	ZU VO.	3	12 do 9 do	(to Dec. 31, '88)	7 50
do do	C. Carmichael	20 yd.	12	3 do	from do	2 50
Black Bank and Lisle	N. Duffin	10	3	12 do 12 do		200 00 50 00
Black Creek and Railway Station	I. H. Allen	3	12	12 do 12 do		62 40
Black's Corners and Laurel	J. Graham.	1 8 4	1	12 do		32 00
Black River Bridge and Picton Blackstock and Cadmus	G. McGuire	$\frac{7\frac{1}{2}}{21}$	$\frac{3}{6}$	12 do 12 do		98 00 100 00
Blackstock and Purple Hill	W. Bartley	$egin{array}{c} 2rac{1}{2} \ 4 \end{array}$	2	12 do 12 do		55 00
Blackwater and Railway Station	J. Hanna	10	24	8 do	(to Nov. 30, '88).	41 73
do do Blackwell Station and Ry Station	J. Ruddy P. Wellington, ir		$\frac{24}{2}$	4 do 12 do		$\begin{array}{ccc} 20 & 87 \\ 26 & 00 \end{array}$
Blackwell Station and Ry. Station Blair and Railway Station	J. Renshaw	12	5	12 do		20 00
Blairhampton and Minden	W. Blair	10^{16}		12 do		52 00

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	Period.	Amount.
					\$ cts.
Blairton and Havelock	M. J. Peters	8	3	12 months	141 68
Blairton and Wariston	J. A. Allan	9	2	5 do (from Nov. 1, '88	41 66
Blandford Station and Ry. Station Blenheim and Leamington	A. Church	$\frac{1}{38\frac{1}{2}}$	11 6	12 do	28 00
Blenheim and Morpeth	C. H. Jones	10	6	3 do (to June 30, '88)	75 00
do do	M. C. Dexter	103	$\frac{6}{12}$	9 do from do 3 do (to June 30, '88)	206 25 18 75
do do	G. A. Breeze	3	12	9 do from do .	
Blenheim and Rondeau.	J. M. Burk	5	3 & 6	12 do	136 00 45 00
Blessington and Shannonville Blind River and Railway Station	G. A. Butterfield			12 do	
Blind River and Thompson Bloomfield and Railway Station	W. E. Bateman.	13	1	12 do	104 00
Bloomfield and Railway Station	W. Woods	21	$\frac{12}{3}$	12 do	
Bluevale and Railway Station	J. Gardner	2\frac{1}{2}	12	12 do	139 00
Blyth and Railway Station Bobcaygeon and Lindsay	H Workman	222	24	12 do	
Bobcaygeon and Peterboro'. Bogart and Chapman.	W. H. Bottum.	22	6	12 do	700 00
Bogart and Chapman	T. Meraw	$\begin{array}{c c} 7 \\ 6 \end{array}$	3 3	12 do	
Bognor and Woodford Bornholm and Brodhagen	G. Leonhardt	4	3	12 do	
Bornish and Sable	A. McDonald	3	2	12 do	
Borromee and OrleansBoskung and Minden	J. Beatty	14	1 1	12 do	
Bosworth and Riverbank	J. G. Hollis	3	2	12 do	50 00
Botany and Thamesville			$\frac{2}{3}$	12 do	
Bothwell and Florence	J. G. Armstrong	9	6	12 do	
Bothwell and Moravian Town	W, Goolding	18	2	12 do	65 00
Boulter and Combermere Boulter and L'Amable	M. McLean	$\frac{16}{22\frac{1}{4}}$	3	12 do	
do do ob	E. J. Lume	241	3	3 do from do .	. 75 50
Bourdeau and Sprucedale Bowesville and Railway Station	W. H. Khamey.	$\frac{6}{2}$	2 3	4 do (from Dec. 1, '88 12 do	16 67 49 48
Bow ing Green and Laurel	J. Davis	32	2	9 do (to Dec. 31, '88)	. 44 43
Bowling Green & Laurel Ry. Station Bowmanville and Cæsarea			6	3 do from do . 12 do	
Bowmanville and Courtice.	C. W. Lent	41	3	12 do	. 80 00
Bowmanville and Tyrone	J. Moore	7	$\begin{vmatrix} 6 \\ 1 \end{vmatrix}$	12 do	143 00 60 00
Bracebridge and Fraserburgdo	J. Clark	12	1	3 do from do .	
Bracebridge and Muskoka Falls	A. R. Cameron.	3	3	12 do 1997 9	. 85 80
Bracebridge and Point Kaye	C. Kaye	20	2	Part of seasons 1887-8 and 1888-89	
Bracebridge and Port Carling	C. McCully	21	2	Part of season 1888	. 20 70
Bracebridge and Railway Station.	F. Sander	4	$\begin{array}{c c} 12 \\ 12 \end{array}$	12 months	75 00 45 75
Bracebridge and Wharf Bracebridge and Ziska Brackenrig and Port Carling	J. Killen	6	2	do	. 40 40
Brackenrig and Port Carling Bradford, Bond Head and Newtor	F. J. Davidson.	4	2	do	. 31 41
Robinson	J. McDermott	9 & 6	6 &12	6 months (to Sep. 30, '88	
Bradford and Newton Robinson	. do	9,	0.4	6 do from do .	F= 00
Bradford and Railway Station Bradshaw and Brigden		$5^{\hat{2}}$	24	12 do	
Braeside and Railway Station	J. Gillies	1.6	12	12 do	. 50 00
Brae Lake and Uplands Bramley and Catching Post	W. J. Taylor	8½	$\frac{1}{12}$	12 do 12 do	
Brampton and Huttonsville	. C. Brooks	4	3	12 do	. 88 00
Brampton and Nortonville	J. Norton	3	3. 12	12 do	
Brampton and Railway Station Brandy Creek and Railway Station	J. Wintermute.	1 8	6	12 do	10 00
Brantford and Harley	R. Cavin	14	6	12 do	. 364 00
Brantford and Langford	A. S. Beecham.	12 &4	3 & 6	12 do 12 do	. 270 00
Brantford and Mohawk, &c Brantford and Railway Station	J. Hale	1	54		

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	Period.	Amount.
					\$ cts.
Brantford and Simcoe Brantford and Street Letter Boxes.	W. P. Croome	$\frac{24}{3\frac{3}{4}}$	$\frac{6}{12}$	12 months (less fine) 9 do (from July 1, '88)	848 00 234 00
Brays Crossing and Railway Station	C. Bray	20 yds	2	12 do	7 50
Breadalbane and Vankleek Hill Brechin and Dalrymple	C. Campbell	$\frac{5}{9}$	3 3	12 do	60 00 170 00
Brechin and Evansvale	S. Luck	51	3	12 do	100 00
Brechin and Railway Station Brentwood and Railway Station	J O'Connell	$\frac{2}{\frac{1}{8}}$	$\begin{array}{c c} 12 \\ 12 \end{array}$	11 do	90 00 50 00
Breslau and Weissenburg	A. Hoen	8	6	12 do	250 00
Brewster and Parkhill	F. Gratton S. Gratton	16	3	3 do (to June 30, '88). 9 do from do	49 25 111 75
Brigden and Railway Station	J. Armstrong	$\frac{16}{\frac{1}{4}}$		12 do	86 00
Bright and Washington, &c	A. Gatzka	6 & 4	6 & 12	12 do	239 00
Brighton and Campbellford Brighton and Lovett	W. Bate	$\begin{vmatrix} 20 \\ 6\frac{1}{2} \end{vmatrix}$	$\frac{6}{6}$	12 do	384 00 195 00
Brisbane and Coningsby	J. W. Burt	4	2	12 do	40 00
Britton and Hammond	M. A. Alexander	$\frac{1\frac{1}{2}}{\frac{1}{4}}$	$\frac{3}{6}$	12 do	45 00 60 00
Britton and Railway Station Brockville and Morristown	D. H. Lyon	2	6	12 do	325 00
Brockville and Railway Station	J. Cavanagh W. Curry.	1 1	$\begin{vmatrix} 7\\18 \end{vmatrix}$	12 do (less fine)	86 25 210 60
do do Brockville and Sherwood Springs	W. Kilmury	8	1	12 do	40 00
Brockville and Street Letter Boxes. Brockville and Westport			as req.	12 do	100 00
	land	44	6	12 do	984 00
Brockville—C. P. Ry. and G. T. Ry. Bronte and Railway Station	J. Cavanagh	20 yds 1½	as req. 12	12 do	$\begin{array}{c} 370 \ 00 \\ 125 \ 20 \end{array}$
Bronte Station and Palermo	A. Coffee	3	6	12 do	190 00
Brooke and Manion	J. Conlen	$\frac{7}{2\frac{1}{2}}$	$\frac{1}{2}$	12 days (to April 12, '88). 11 months 18 days (from	6 98
brooke and wenryss	D. MCKeracher.	_	2	April 13, '88)	48 35
Brookfield Station and Ry. Station		$\frac{2}{2}$	6	12 months	50 00
Brookholm and Owen Sound Brookholm and Shouldice	T. Skinner	7	$\begin{vmatrix} 3\\1 \end{vmatrix}$	12 do	75 00 50 00
Brooklin and Railway Station	R. D. Hay	1/2	12	12 do	70 00
Brotherston and Newbridge Brougham and Markham	F. G. Perev	2 13	$\frac{2}{6}$	12 do	$\frac{45}{137} \frac{00}{50}$
do do	S. G. Reesor	13	6	6 do from do .	200 00
Brougham and WhitbyBrown Hill and Ravenshoe Station.	J. Scott J. Brown	80rods	$\frac{6}{12}$	12 do	400 00 30 00
Brucefield and Railway Station Bruce Mines and Cloudslee	W. Dixon	1	12	12 do	106 08
Bruce Mines and Cloudslee Bruce Mines and Cockburn Island.	N. McEwan C Hendrickson	$\frac{5}{42}$	1	3 do from Jan. 1, '89. Part of seasons 1887-88	10 00
				and 1888-89	216 00
	J. Robinson R. E. Miller	$\begin{array}{c} 16 \\ 16 \end{array}$	1	6 months (to Sept. 30, '88). 6 do from do	$\begin{array}{ccc} 52 & 00 \\ 62 & 00 \end{array}$
Bruce Mines and Port Finlay	C. Hendrickson.	22	2	Season, 1888	156 00
Bruce Mines and Railway Station.	J. Hicks	2	6	4 months 16 days (from Nov. 15, '88	58 50
Bruce Mines and Rydal Bank	W. R. Smyth	6	1	2 months (from Feb. 1, '89)	8 66
Brudenell and Castile	E. Bennett	9	$\frac{1}{2}$	12 do	80 00 130 00
Brudenell and EmmettBrunner and Railway Station	J. Attridge	$\frac{13}{\frac{1}{8}}$	/2	12 do (and arrears)	30 00
Brunswick and Railway Station	L. C. Patterson.	16	6	12 do	60 00
Brussels and Cranbrook Brussels and Railway Station	R. & S. Beattie.	1 D	$\frac{6}{12}$	12 do	162 00 150 00
Bulger and Bulger's Corners Burford and Cathcart, &c	T. Gorman	34	3	12 do	12 00
Burgess Corners and Douglas	W. Whitelaw	$8 & \frac{1}{2} \\ 5$	3 & 6	12 do	$174 00 \\ 147 00$
Burgessville and Newark	M. Springer	5	6	6 do (to Sept. 30, '88).	120 00
do do	J. Heath W. B. Somerville	5 8	$\frac{6}{3}$	6 do from do	90 00 130 00
Burgessville and Railway Station	E. W. Burgess	1/8	12	12 do	49 92
Burk's Falls and Chetwynd Burk's Falls and Denville	J. A. Rumohr	5 91	$\frac{1}{3}$	6 do (from Oct. 1, '88) 6 do (to Sept. 30, '88).	$\begin{array}{cccc} 27 & 50 \\ 97 & 00 \end{array}$

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	Period.	Amount.
					\$ cts.
Burk's Falls and Dunchurch	D. McMillan	29	3	Part of seasons 1887-88	1 40 00
Burk's Falls and Hartfell	J. Duke	$15\frac{1}{2}$	2	and 1888-89 6 months (to Sept. 30, '88)	140 00 86 50
Burk's Falls and Railway Station	R. H. Menzies	$\frac{1}{1\frac{1}{2}}$	$\frac{12}{6}$	12 do	153 75 90 00
Burlington and Port Nelson Burlington and Railway Station	H. Bray	$1rac{1}{2}$	6	6 do (to Sept. 30, '88).	43 64
do do Burlington Beach and Ry. Station.	W. Bamford	$\frac{1\frac{1}{2}}{1}$	$\frac{6}{12\&3}$	6 do from do Part of seasons 1887-88,	45 00
,				and 1888-89	51 60
Burlington Station and Zimmerman Burnaby and Railway Station	C. F. Cartwright	$\frac{9}{2}$	6 3	12 months	280 00 50 00
Burnaby and Railway Station Burnbrae and Railway Station	A. T. Donald	5	6	12 do	159 00
Burnbrae and Stanwood Burnley and Castleton	D. Welton	$\frac{11\frac{1}{2}}{8}$	2 3	12 do	98 00 120 00
Burnstown and Springtown Burnt River and Rettie's Station	A. Nelson	5,	3	6 do (from Oct 1,'88).	40 00
Burritts Rapids & North Montague	J. A. Ormond	7	1	12 do	80 00 52 00
Burys Green and Fells Station Byng Inlet and French River	J. Fell	$\begin{array}{c c} 2\frac{1}{2} \\ 25 \end{array}$	ftnly.	12 do	46 80
				and 1888-89	72 00
Byng Inlet North and Parry Sound Byron and London		$\begin{array}{c c} 65 \\ 6 \end{array}$	$\frac{2}{6}$	do	530 00 160 00
Cahore and Chrysler		4	3	10 1	62 00
Caistorville and Winona	J. Williams	20	3	4 do (to July 31, '88).	81 66
Calabogie and High Falls Calabogie and Railway Station	T. Dillon	7,	$\frac{1}{6}$	12 do	43 08 58 00
Calder and Railway Station	H. G. Jones	$2\frac{3}{4}$	2	12 do	55 00
Calderwood and Railway Station Caldwell and Caledon	N Patterson	3 4	3 6	12 do	80 00 186 25
Caldwell's Mills and Ry. Station Caledon and Railway Station	W. Reid	34	6	12 do	40 00
Caledon and Railway Station	N. Patterson	11	18	12 do 12 do	81 00 410 00
Caledonia and Conboyville	S. Arrell	6	2	12 do	70 00
Caledonia and North Seneca Caledonia and Railway Stations	P. McMullen	$\frac{3}{\frac{1}{2}}$	36	12 do	$112 00 \\ 159 12$
Caledonia Springs and L'Orignal	J. A. Beaver	4 9	$\frac{2}{3}$	12 do	57 50 78 00
do do	I. Lalonde	9	3	6 do from do	77 50
do do Callander and Railway Station	J. Lacombe	9	3 6	Season 1888	52 00 31 28
Callander and Wisawasa	R. W. Graham .	$2\frac{16}{2}$	3	12 do	78 00
Cambray, Lindsay and Ry. Station.	R. Moffatt	8 & 10 \\ 9	$\frac{6}{6}$	6 do (to Sept. 30, '88). 6 do from . do	150 00 135 00
Cambray and Lindsay	J. Bryson	34	12	12 do	120 00
Camerontown and Railway Station Camerontown and Summerstown	A. Cameron	3	12	12 do	49 92 96 00
Camilla and Granger	W. Dynes	$\frac{6\frac{1}{2}}{4\frac{1}{2}}$	2	12 do	78 00 75 00
Camlachie and Hillsborough	R. Blain	$\begin{vmatrix} 4\frac{1}{2} \\ 9 \end{vmatrix}$	2	12 do 12 do	156 00
Campbellcroft and Railway Station Campbell's Cross, Cheltenham and	A. Smith	70 ft.		12 do	35 00
Railway Station	A. Campbell	$\frac{1}{2}$ &21rt	12&6	3 12 do	339 00
Campbellford and Godolphin Campbellford and Railway Station	C. Aggett	5	2	12 do	68 00
1	gan	1 2	12	12 do	93 60
Campbellville and Railway Station Campbellville Station and Nassa		1	6	12 do	50 00
gaweya	J. Easterbrook	51		12 do	200 00
Campbellton and West Lorne Campden and Rosedene	J. B. Grobb	$\begin{bmatrix} 6\frac{1}{4} \\ 6 \end{bmatrix}$	3	12 do	190 00 130 00
Camperdown and Changing Post	J. Barclay	4 rods	12	12 do	10 00 197 16
Canboro, Canfield and Warner Canfield and Railway Station	J. Switzer	0 & 24	12	12 do	197 16 62 40
Canning and Paris Station	H. Oliver	4 4 2	6	12 do	199 00

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
						\$ cts.
Cannington and Pefferlaw	G. Newson	10	3	12 mon	ths	174 00
Cannington and Railway Station	R. J. Harwood.		24	6 do	(to Sept. 30, '88).	30 00
do	W. Cassidy	12 12	24	6 do	from do	30 00
Cape Croker and Colpoy's Bay	W. D. Bell	15	2	3 do	(to June 30, '88).	50 00
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	E. Cross	15	2	9 do 12 do	from do	$150 00 \\ 120 00$
Carden and Horncastle			$egin{pmatrix} 2 \\ 2 \\ 2 \end{bmatrix}$	9 do	(to Dec. 31, '88)	37 50
	G. Sharp	4	$\tilde{2}$		from do	12 50
Cardinal and Hyndman	J. Hyndman	13	3	12 do	·····	200 00
Cardinal and Railway Station Cargill and Railway Station	W. Stitt	1	14	12 do		73 00
Cargill and Railway Station	C. W. Keeling	345344-151-15 86	12	12 do		96 00
Carleton Place and Railway Station Carleton West and Railway Station	P. P. Salter	4	$\frac{36}{12}$			$\begin{array}{r} 374 \ 40 \\ 62 \ 50 \end{array}$
Carlingford and Sebringville	R Crawford	81	3			148 16
Carluke and Hamilton	W. Young		6			400 00
Carluke and Hamilton	C. Lobsinger	14	12	12 do		110 00
Carmunnock and Monkton	A. Campbell	4	2	12 do		60 00
Carp and Elm	N. Smith	3	3	6 do	(to Sept. 30, '88).	37 50
do do			3	6 do	from do	37 50
Carryille and Patterson	do	$\frac{2\frac{1}{2}}{2}$	6	11 do 1 do	(to Feb. 28, '89) from do	73 33 6 66
Cartier and Railway Station	C Landers	20 ft.	12	12 do	from do	10 00
Carsonby and North Gower	A. Eastman	31/2	$\frac{12}{2}$	12 do		61 25
Carswell and Railway Station	D. Carswell	3	2	12 do		53 00
Carthage and Tralee	B. Donagen	2	3	12 do		40 00
Cashion's Glen and Cornwall	J. J. Cashion	13	3	12 do		250 00
Cashtown and Creemore		2	6	12 do		100 00
Casselman and Crysler	B. Corlar	11	$\frac{6}{12}$	12 do 12 do		$\begin{array}{ccc} 197 & 00 \\ 25 & 00 \end{array}$
Cassels and Railway Station	S. Robertson.	81	3	12 do		207 48
Castleford and Railway Station	J. Warnock	2^2	6	12 do		200 00
Castlemore and Kleinburg Station	R. Douglas	14 r.t.	6	3 do	(to June 30, '88).	66 00
do do	J. Hugill, jr	14 r.t.	6		from	187 50
Cataract and Railway Station	J. Howard	12	12	12 do		65 00
Cayuga and Gynsum Wines	M Thompson	$\frac{1\frac{1}{2}}{3\frac{1}{2}}$		12 do 12 do		87 36 115 00
Cayuga and Gypsum Mines Cayuga, Deans and Railway Station	J. Shipway	2 & 1	6 & 12		*******	230 00
Cayuga and Kohler	J. Booker	41/2				80 00
Cayuga and Upper	J. Everets	12	3	12 do		145 00
Cecebe and Steamer Cedar Dale and Railway Station	W. A. Cowan	16	3	Season 1	[888	21 50
Cedar Hill and Pakenham	W. Coleman	$5\frac{1}{2}$			hs	125 00
Centralia, Crediton and Railway	S. Connery	95	2	12 do		80 00
Station	J. Clark	61	12	12 do		200 00
Centralia and Mooresville	R. Handford.	334	6	12 do		200 00
Centreton and Grafton	W. Roberts	$13\frac{1}{2}$		12 do		163 00
Centreville and Tamworth	S. Fleming	8	6	1 do	(from Mar. 1, '89)	13 82
Chaffey Locks and Elgin	M. Doyle	6		12 -do		70 00
Chandos and Clydesdale	H Caldwell	$\begin{vmatrix} 2\frac{1}{6} \\ 5 \end{vmatrix}$		12 do 12 do		$\frac{100}{30} \frac{00}{00}$
Chantry and Philipsville	A. Elliot	51				150 00
Chapleau and Railway Station	T. A. Austin	18		12 do		75 00
Chapman and Stoco	A. Chapman	3		12 do		78 00
Charing Character Charles Char	W. J. Brown	4		12 do		56 00
Charing Cross and Comber, &c Charing Cross and Doyles	M. Dovlo			12 do	(less fine)	474 00
Charing Cross and Boyles Charing Cross and Railway Station.	J. Hunter	41/2		12 do 12 do	* * * * * * * * * * * * * * * * * * * *	$\begin{array}{ccc} 55 & 00 \\ 72 & 00 \end{array}$
Charleston and Farmersville	J. Kavanagh	51		12 do		70 00
Charlinch and Novar	L. Robinson	$9\frac{1}{4}$		12 do		100 00
Chatham and Dover South	G. W. Bourdeau.	6		12 do		199 00
Chatham and Irwin	T. Prime	5		12 do		50 00
Chatham and Railway Station	A. McDonald	6		12 do		120 00
Chatham and Street Letter Boxes.	P. O. Flynn	34	$\begin{array}{c c} 36 \\ 18 \end{array}$	12 do 9 do	(from July 1 '88)	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Chatham and Van Horn	J. Zink.	6		9 do 12 do	(from July 1, '88)	70 00
	10		4	12 00	*************	10 00

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.			Period.	Amount.
							\$ ets.
Chatham and Williams	R Williams	9	2	112 n	nont	hs	80 00
Chatsworth and Chesley	J. Edgar, jr	$23\frac{3}{4}$	3	9	do	(from July 1, '88)	292 50
Chatsworth and Mooresburg	N. McIntyre	20 17	6 3		do	(to June 30, '88)	435 00 54 75
Chatsworth and Kailway Station.	D. Rae	82	24	12	do		124 80
Chatsworth and Strathavon Chatterton and Foxboro	A. F. D. Lee	$\frac{8}{3\frac{1}{2}}$	$\frac{3}{2}$	12 12	do		136 00 50 00
Cheapside, Jarvis and Rv. Station.	L. Brown	16	6 & 12	7	do	(to Oct. 31, '88)	173 83
do do Cheddar and Gooderham	W. Atkinson	16 19	6 & 12	5	do	from do (to Sept. 30, '88)	187 08 97 50
do do	W M. Patterson	19	1			from do	75 00
Cheddar and Wilberforce Chelmsford and Railway Station		8	$\frac{1}{3}$			(to June 30, '88)	$\frac{10}{25} \frac{00}{00}$
Cheney and Kearney	L. Perron	$\begin{array}{c} \frac{1}{16} \\ 5 \end{array}$	1				25 00
Chepstowe and Dunkeld Station	C. Mullin	$\frac{2^{1}_{2}}{6}$	$\begin{array}{c c} 6 \\ 1 \end{array}$				130 00 37 00
Cherry Valley and Point Petre Cherry Valley and Salmon Point	J. M. Bently	6	2				44 48
Cherrywood and Whitevale	M. R. Summer-	$3\frac{1}{2}$	3	12	do		95 00
Chesley and Coverley	feldt. P. Kildil.	$\frac{3_{\frac{5}{2}}}{6_{\frac{1}{2}}}$				13 days (to Oct.	33 00
		3	12	10		13, '88)	51 92 80 00
Chesley and Railway Station Chesley and Scone	W. Graham	$1\frac{\frac{38}{8}}{1\frac{1}{2}}$	3		do	15 days (broken	80 00
		1		10		period)	28 00 80 00
Chesterville and Connaught Chesterville and Moorewood	F. Elliott	5 8	$\begin{vmatrix} 2 \\ 6 \end{vmatrix}$	12	do	(to Dec. 31, '88)	106 50
do do	H. Dillabough	8	6	3	do	from do	35 50
Chesterville and Morrisburg do do	M. Brown & C.	$18\frac{1}{2}$	6	6	do	(to Sept. 30, '88)	212 50
	L. Casselman.	181	6	2	do	9 days (to Dec.	
do do	J. Marselis	181	6	3	do	9, '88) 22 days (from do)	80 84 131 66
Chesterville and Railway Station		4	10	10		18 days (from	
Chevalier and Stoney Point	O. Marion	1	12	12	do	May 14, '88)	66 14 100 00
Cheviot and Riversdale	A. McLean, ir	3	2	12	do		65 00 500 00
Chippewa and Niagara Falls Chiselhurst and Hensall	T. Murdock	6 4	$\frac{12}{2}$	$\frac{12}{12}$	do		70 00
Christie's Corners and Heckston	J. Van Allan	25	2	5		(to Aug. 31, '88)	
Christina and Mount Brydges Churchill and Lefroy Station	J Sloan	4 21	$\frac{2}{12}$	12 12	do		45 00 220 00
Churchville and Railway Station	T. A. Fogarty	1 3	1 0	12			80 00 63 75
Clareview and Erinsville	J. Cossar	4 2	6	$\frac{12}{12}$	do		20 00
Claremont and Ry. Station	W. McKann	75		12	do		189 00
do do	E. Derusha	8	$\begin{array}{c c} 12 \\ 12 \end{array}$	9 3		(to Dec. 31, '88) from do	
Claremont and Stouffville	J. Sellars	19 r.	6	12	do		313 00
Clarence Creek & Thurso Ry. Station Clarence Creek and the Lake		8 5	6 2	$\frac{12}{12}$			
Clarke and Kendal	S. J. Morgan	61		12	ob		181 52
Clarke and Railway Station do do	J. Pethick	$5\frac{1}{5}$		9 3	do	(to Dec. 31, '88). from do	150 40 68 53
Clarksburg and Heathcote	S. C. Rowe	5	6	12	do		188 00
Clarksburg and Redwing	J. S. G. Conklin do	$\begin{vmatrix} 13\frac{1}{2} \\ 13\frac{1}{2} \end{vmatrix}$	$\frac{2}{3}$	8	do	(to July 31, '88). from do .	48 33 144 66
Clarksbur and Thornbury Station	S. C. Rowe	15	24	12	do	less fine	123 00 25 00
Clarkson and Railway Station Clavering and Railway Station	A. Bennett	l g	$\begin{array}{c c} 12 \\ 12 \end{array}$	12 12	do do		60 00
Clayton and Rosetta	G. McFarlane	6	$\frac{2}{3}$	12	do	Burn germanne	100 00
Clayton and Tatlock	E. Tanslev	. 5	2	$\frac{12}{12}$	do do		168 00 65 00
Clevelands and Craigie Lea	J. C. Walls	6 & 3	2 & 1	9	do	(to Dec. 31, '88).	
Clifford and Huntingfield	W. J. Halladay	6	$\begin{vmatrix} 2\\6 \end{vmatrix}$	12 12	do do		75 00 156 00
	20						

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.			Period.	Am	ount.
								\$ ets
Clifford and Mount Forest		14	2			ths (to Oct. 31, '88)		75 83
Clifford and Railway Station Clinton and Railway Station	K. M. Walton.	4	$\begin{array}{c} 12 \\ 48 \end{array}$	$\frac{12}{12}$	do			100 00 374 40
Clinton and Summerhill	G. M. Kilty	44	2	12	do			50 00
Clorer Hill and Cookstown	J. R. McDonald H. Coleman	$\frac{8}{2\frac{1}{2}}$	3 6	$\begin{vmatrix} 12 \\ 9 \end{vmatrix}$	do	(from Tuly 1 200)	-	156 00 94 59
Clover Hill, Cookstown and Egbert	do	$2\frac{1}{2} \& 6\frac{1}{2}$	3	3	do	(from July 1, '88) (to June 30, '88).		56 75
Cloyne and Denbigh	J. Flake	28	$\frac{2}{2}$	12	do			410 00
Cloyne and Scouten	D. A. Spencer	$\begin{array}{c c} 12 \\ 13 \end{array}$	6	$\frac{12}{12}$	do			154 69 440 00
Cloyne and Snyder Depot	E. Babcock	3	3	3	do			8 75
Cobble Hill and Evelyn	M. Barber, jr	$5\frac{1}{2}$	$\frac{2}{12}$	$\frac{12}{12}$	do	• • • • • • • • • • • • • • • • • • • •		49 48 50 00
Cobden Station and Eganville		184	12	12	do			304 00
Coboconk and Fenelon Falls	C. Bowins	16	3	12	do			234 00
Coboconk and Lorneville	A. Hume	$\begin{array}{c c} 28 \\ 24 \end{array}$	$\frac{6}{6}$	$\frac{12}{12}$	do			975 00 575 00
Cobourg and Harewood	W. Wellwood	16	6	12	do		4	448 00
Cobourg and Roseneath	T. McCutcheon.	20	$\frac{6}{12}$		do	(fnom Tuly 1 200)		595 00 150 00
Coe Hill Mines and Faraday	G. Orr	8	1	12	do	(from July 1, '88)	_	40 00
Coe Hill Mines and Glen Alda	I. A. Rosebush.	$7\frac{1}{2}$	1	12	do			60 00
Coe Hill Mines and Railway Station	ton	$\frac{1}{2}$	12	12	do			50 00
Coe Hill Mines and Rose Island	J. McKee	6	1	12	do			51 50
Coe Hill Mines and The Ridge Colborne and Dundonald		7	$\frac{1}{6}$		do		1	40 00 135 00
Colborne and Hastings		$\begin{bmatrix} 7 \\ 25 \end{bmatrix}$	6		do	(to June 30, '88).		200 00
Colborne and Lakeport	E. Redfern	$\frac{2^{1}}{2}$	12	12	do			175 00
Coldwater and Eady	J. S. Yeomans	$\begin{array}{c c} 16 \\ 3 \end{array}$	$\frac{6}{3}$		do	(from July 1, '88)		300 00 75 00
Coldwater and Lovering	S. Eplett	6	2	12	do			90 00
Coldwater and Railway Station Coleman and Railway Station	do	1	$\frac{24}{c}$		do			200 00
Collingwood and Gibraltar	J. Glenn	$10^{\frac{1}{6}}$	$\frac{6}{1}$		do			60 00 52 00
Collingwood and Railway Station .	D. Darroch	18	36	12	do			250 00
Collingwood & Street Letter Boxes. Collin's Bay and Railway Station	J. J. Losee	3	18 12		do do	(from July 1, '88)		$\frac{150}{42} \frac{00}{00}$
Collin's Inlet and Killarney	D. Lamorandière	18	1	12	do		1	53 40
Colpoy's Bay and Wiarton Colwell and Railway Station	L. Hyatt	3	$\frac{6}{12}$		do			$115 00 \\ 62 40$
Comber and Railway Station	H. Whatley	300314	6		do			74 88
Comber and Windfall	T. Strang	9	2	12	do		1	00 00
Combermere and Eganville Combermere and Maynooth	M. Furlong J. Green	$\begin{vmatrix} 35 \\ 25 \end{vmatrix}$	$\frac{6}{1}$		do			300 00 250 00
Comet and Vereker	D. Graveline	4	$\frac{1}{2}$	12	do			80 00
Commanda and Loring	R. W. Brooks A. O. Smith	$\begin{bmatrix} 26 \\ 9 \end{bmatrix}$	1		do			150 00 75 00
Connor and Palgrave Station	J. Fleming	7	6		do do			219 00
Conroy and St. Paul's Station	J. Gradv	$2\frac{1}{3}$	2	12	do			60 00
Consecon and Railway Station Cookstown and Railway Station	H. Coleman.	4			do do			93 60 75 00
Cook's Mills and Railway Station	G. McDonald.	14	6	2		(from Feb. 1, '89).		15 00
Cooksville and Railway Station Cooksville Station and Sheridan	C. R. Colwell	$\frac{1}{8}$			do	*****		.50 00 274 00
Cooksville Station and Summerville.	P. McLaughlin.	6	6	12	do do			25 00
Cooper and Madoc	J. Best	11	3	12	do		1	95 00
Cooper and The Flatsdo do do	W Golway	$\begin{bmatrix} 5 \\ 5 \end{bmatrix}$	$\begin{bmatrix} 2 \\ 2 \\ 2 \end{bmatrix}$		do do	(to Dec. 31, '88)		75 00 17 50
Coopers Falls and Lewisham	J. G. Taylor	12	$\frac{2}{2}$	9	do	(to Dec. 31, '88).		90 00
do do Copetown and Orkney	W. J. Tryon	$\frac{12}{3}$	$\frac{2}{6}$		do do	from do		30 00 .80 00
Copleston and Petrolia	N. Henriod	5			do			70 00
Corbetton and Railway Station Corinth and Railway Station	J. Corbett.	30 rds	6	12	do			35 00
Common and nanway Station	w. Moore	zo rds	12	9	do	(to Dec. 31, 88).		52 50

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	Period.	Amount.
					\$ ets
Corinth and Railway Station	R. Evans		12	3 months (from Jan. 1, '89	
Cornwall and Railway Station Cornwall and St. Andrews, West	J. Rivière	$\frac{1}{7}$	1 3	12 do 12 do	. 13 00 195 00
Cornwall and Street Letter Boxes			$\begin{array}{c c} 12 \\ 12 \end{array}$	9 do (from July 1, '88	175 50
Cornwall and Tayside	D. D. McKera-				
Cornwall Centre and Milleroches	cher D. McKay	$\frac{24}{2\frac{1}{2}}$	3	12 do	
Corson's Siding and Head Lake	W. Maxwell	12	3	12 do	. 175 00
Corunna and Railway Station Corwhin and Nassagaweya	H. J. Miller	$2^{\frac{1}{3}}$	$\frac{12}{6}$	12 do	. 76 00 48 00
do do	P. McLaren	$\frac{1}{2}$	6	6 do from do .	. 48 00
do do Cotswold and Elorado do	J. McEachren	23 23	6	3 do (to June 30, '88 9 do from do	
Cottesloe and Norwood	C. Griffin	81	2 6	12 do	. 75 00
Coulson and Orillia	W. Smith	16 19	6	12 do	
Courtland and Railway Station	do	4	12	12 do	. 80 00
Courtwright and St. Clair Branch Station	W. A. Cathcart.	1 8	12	12 do	. 63 50
Courtwright and Erie and Huron Railway Station.	do	1 3	12	12 do	76 00
Coverley and Kinghurst	J. A. King	4 4 5	2	6 do (to Sept. 30, '88)	. 22 50
Cowal and Iona Station Craigie Lea and Gregory	G. McCallum	6 5	$\frac{2}{1}$	12 do	
Craigleith and Railway Station	A. Fleming	1 1	6	12 months	. 48 00
Cranbrook and Moncrieff Cranston and Railway Station	J. King	4 412	$\frac{1}{6}$	12 do	
Cranworth and Portland	R. Hart	$5\frac{1}{2}$	1	12 do	. 25 00
Crawford and Elmwood	G. G. Smith	9 1	$\frac{3}{12}$	12 do	
Creemore and Lavender	R. M. Lackie	7	$\frac{3}{12}$	12 do	0000
Creemore and Railway Station Cressey and Picton	C. Storms	19	3	12 do	. 300 00
Creswell and Railway Station	T. Pearn	34	6 12	Special trips	
Creswell and Railway Station	M. Shakleton	116 5		12 do	. 26 00
Crinan and West Lorne Crofton and Rossmore	A. McIntyre	$\frac{4\frac{1}{4}}{9}$	$\frac{2}{6}$	12 do	. 75 00 49 75
do do	J. Martin	9	6	9 do from do (less fin	e) 202 25
Crossland and Phelpston	J. Mahoney	5 8	$\frac{2}{3}$	12 do	
Cruickshank and Owen Sound	W. T. Barfoot	6	3 6	12 do	
Crysler and Wales Cumberland and Railway Station	J. Winser	$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		12 do	
Currie's Crossing and Railway Station		1	6	12 do	60 00
Curry Hill and River Beaudette	M. C. Curry	5	3	8 do (from Aug. 1, '8	66 67
Cushing and Little Rideau Cyprus and Novar Station	J. Little	$\frac{4\frac{1}{2}}{2}$	$\begin{array}{c c} 6 \\ 3 \end{array}$	12 do	
			2	10 1	60 00
Dacre and Esmonde			2	12 do	11 67
Dacre and Griffith	T. Holmes	20	2 3	12 do	200 00
Dale and Ross Mount	J. Lill	22	2	12 do	. 50 00
Dale and Ross Mount Dalkeith and Glen Robertson Dalston and Orillia D'Arcy and Howe Island Darrell and Railway Station.	W. T. Robinson.	8 40 r. t.	$\begin{array}{c c} 6 \\ 6 \end{array}$	12 do	
D'Arcy and Howe Island	C. Sughrue	6	2	12 do	. 60 00
Darrell and Railway Station Dartmoor and Sebright	S. Duncan	20 rods	6 3	12 do	$ \begin{bmatrix} 10 & 00 \\ 52 & 50 \end{bmatrix} $
Dashwood and Parkhill	J. S. Witzel	161	6	12 do	. 439 00
Davenport and Fairbank	J. Green	$\begin{array}{c} 2\frac{1}{2} \\ 50 \text{ vds} \end{array}$	$\frac{6}{12}$	12 do	64 00 7 50
do do	W. Rountree	50 yds	12	3 do from do	

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
Davenport—C. P. Railway and N & N. W. Railway	G. T. Railway Co	50 yds	12	12 mont	hs	\$ ets.
Davenport—Midland Railway and Northern Railway	S. McElroy			Special	transfer:	5 00
Davis' Mills and Pembroke	W. J. Leech R. Davis	8	1 1	9 mont	ths (to Dec. 31, '88) from do	33 75 11 25
Dawn Mills and Dresden	L. Philips W. Harris, jr	4	$\frac{6}{2 \mathrm{s}, 1 \mathrm{w}}$	12 do		$\begin{array}{c} 148 \ 00 \\ 116 \ 00 \end{array}$
Decewsville and Railway Station	C. Hagney	$300 \mathrm{yd}$	12	9. do	(to Dec. 31, '88).	37 50
do Deemerton and Mildway	J. Heaton B. Ruland	$2\frac{1}{2}$	6	9 do	from do (to Dec. 31, '88).	15 00 75 00
do do Deerhurst and Gilford	A. Knenemann M. Kneeshaw	$4\frac{1}{2}$	6 3	3 do	from do (to June 30, '88).	22 50 25 00
do do Deer Lake and Leafield	R. Baynes J. F. McMillan.	$\begin{array}{c} 4\frac{1}{2} \\ 5 \end{array}$	$\frac{3}{1}$		from do (to June 30, '88).	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Delaware and London Delhi and Lynedoch, &c	J. Charles J. Powell	$\frac{12}{6}$	$\begin{bmatrix} 6 \\ 6 & 12 \end{bmatrix}$			$250 00 \\ 149 00$
Deloro and Railway Station	M. O'Connor J. H. Young	$1\frac{1}{2}$ $4\frac{1}{2}$		12 do		96 00 115 00
Delmer and Tilsenburg	W. Robinson	$\frac{4}{12}^2$	$egin{array}{cccc} 2 & 1 & 1 \\ 1 & 1 & 1 \end{array}$	12 do		46 00
Denbigh and Plevna	G. P. Stein	23	2	12 do		62 00 250 00
	J. Edwards		12		• • • • • • • • • • • • • • • • • • • •	$\begin{array}{c} 125 & 00 \\ 38 & 00 \end{array}$
Derrynane and Kenilworth	W. Short J. Hayes	$\frac{3}{5\frac{1}{2}}$	$\frac{2}{2}$			58 00 60 00
Desert Lake and Sydenham Deux Rivières and Railway Station.	W. Snook	11	1			69 00 100 00
Dewe and Parry Sound Dexter and Sparta	J. Wright C. M. Pettit	11 ⁴ 4½	1 4	Season 1	1888ths	26 75 85 00
Diamond and Kinburn	D. McMillan	$\frac{4}{3}$	3 3	12 do		80 00
	J. Drummond	74	2	12 do		70 00 60 00
Dixon's Corners and Dundela Dixon's Corners & Pleasant Valley.	J. E. Tuttle W. Baxter	$\frac{4}{10\frac{1}{4}}$	3 3	12 do 6 do		$\frac{75}{67} \frac{00}{00}$
do Dobbinton and Railway Station	D. Gilmer J. Douglas	$10\frac{1}{4}$	$\frac{3}{9}$	6 do 12 do	from do	67 00 95 00
Dobbinton Railway Station and Williscroft	B. Talbot	41/2	3	12 do		110 00
Doe Lake and Spence	M. Gilmour N. Hanes	14 ² 32	2 3	1-0 7		100 00 800 00
Dolsen and Railway Station	B. Daly	$\frac{3}{2\frac{1}{2}}$	1 2	1.2 do		25 00
Dominionville and Morrisonville Don and Toronto	A. Hogg	8	6	12 do		$\frac{45}{360} \frac{00}{00}$
Donegal and Railway Station Doon and Railway Station	J. H. Thompson.	13		12 do 12 do		$\begin{array}{ccc} 120 & 00 \\ 20 & 00 \end{array}$
Dorking and Newton Douglas and Grattan	B. Donegan M. B. McFarlane	13	$\frac{6}{2}$	12 do 10 do	(from June 1, '88)	300 00 58 33
Dovercourt and Yorkville Downeyville and Omemee	T. Handcock	$\frac{4\frac{1}{2}}{5\frac{1}{2}}$	6			$125 00 \\ 160 00$
Downsview and Railway Station Drayton and Glen Allen	J. E. Clarke	$10^{\frac{5}{5}}$	6 6	12 do	(to Sept. 30, '88).	75 00 162 00
do do	W. Stubbs	10	6	6 do	from do	145 00
Drayton and Railway Station Dresden and Railway Station	D. Turnbull	$\begin{array}{c} \frac{1}{2} \\ \frac{7}{10} \\ 2 \end{array}$	24	12 do	/e 7NT 1 200)	$149 00 \\ 136 00$
	R. Legatt	$\frac{2\frac{1}{2}}{2}$	2	5 do 12 do	(from Nov. 1, '88)	29 16 40 00
Dromore and Holstein Drum and Pontypool	H. Byres	$\frac{9}{2\frac{1}{2}}$	$\frac{6}{2}$		(to Sept. 30, '88).	$\begin{array}{cccc} 215 & 00 \\ 35 & 00 \end{array}$
Drumbo and Railway Station Drumquin and Milton	W. H. Burgess J. McIntosh	18 r.t.	12 6	12 do 12 do		$\frac{160\ 00}{300\ 00}$
Drysdale and Kippen Duart and Palmyra, &c	J. Brisson	10	3	12 do	(to Dec. 31, '88)	$\begin{array}{c} 146 \ 00 \\ 225 \ 00 \end{array}$
	W. M. Curtis		6& 12		from do	86 25 238 00
Dustin and I arquitat	28			112 do		200 00

	Name	ce in	of Trips r Week.				
Name of Route.	of Contractor.	Distance Miles.	No. of per W			Period.	Amount.
							\$ ets
Dublin and Railway Station do do	J. Williams J. Myers	. 4	24 24	3 r		ths (to June 30, '88)	37 44
Dufferin and Kingston Mills	S. Donaldson	3!	3	12	do	from do	79 56 40 00
Dufferin Bridge and Emsdale Dufferin Bridge and Waubamick Dumblane and Paisley	W. Brooks	$\frac{26}{26}$	3 1	12 12	do do		589 00
Dumblane and Paisley	R. Cruikshank.	$5\frac{1}{5}$	3	12	do		193 00 130 00
Dunbar and Grantley Dunbarton and Frenchman's Bay	J. C. Munro	5	3	12	do		70 00
Station	W. Pizer	38	13	12	do		125 00
Dunbarton and Liverpool Market Duncan and Heathcote	do		6	$\frac{12}{12}$	do do		76 00 44 00
Dunchurch and Glenila	W. McAmmond.	71	2	12	do		90 00
Dundalk and Hopeville Dundalk and Kingscote	R. Scott	12	$\frac{3}{2}$	$\frac{12}{12}$	do do	• • • • • • • • • • • • • • • • • • • •	123 24 129 76
Dundalk and McIntyre	A. Stewart	131	3	4	do	(to Dec. 31, '88)	66 67
Dundalk and McIntyredo do Dundalk and Maple Valley	N. D. McKinnon	$13\frac{1}{2}$	3 3	3 9	do do	from do	$\begin{array}{c} 50 & 00 \\ 127 & 50 \end{array}$
do do	J. McKenzie	128	3	3	do	(to Dec. 31, '88) from do	42 50
Dundalk and Railway Station Dundas and Hamilton	G. W. Parsons	$5^{\frac{1}{8}}$		$\frac{12}{12}$	do do		$90\ 00$ $125\ 00$
Dundas and Sheffield	P. Humphrev	14	6	12	do		449 00
Dunkeld and Railway Station Dunmore and Spence's Corners	J. B. Ischirhart.	3	6 3	$\frac{12}{12}$	do do		90 00 60 00
Dunnville and Railway Station	M. Culleton	1 4	18	12	do		100 00
Dunnville and Selkirk	S. Hurst	18	0	$\frac{12}{12}$	do do		490 00
Dunnville and Wellandport. Dunrobin and South March	P. Orchard	18 r.t.	3	12	do		$\begin{array}{c} 312 & 00 \\ 150 & 00 \end{array}$
Dunrobin and Woodlawn	W. H. Wilson	4	3 6	$\begin{array}{c} 12 \\ 12 \end{array}$	do		70 00
Duntroon and Maxwell	J. Russell	14		12	do		$ \begin{array}{r} 390 \ 00 \\ 156 \ 48 \end{array} $
Durham and Flesherton Station Durham and Railway Station,	T. A. Harris	14	$\frac{6}{12}$	$\frac{12}{12}$	do		316 17
Durham and Walkerton	G. Crittenden	$16\frac{8}{2}$	6	12	do		60 00 297 00
Dwight and Huntsville	G. F. Marsh	$13\frac{1}{2}$	$\frac{2}{2}$	12 12	do		195 60
Dyers Bay and Lion's Head		16	4	12	do		273 00
Eagle and West Lorne	J. Martin	41/8		$\frac{12}{12}$	do		198 89
Ealing and The GoreEastman's Springs and Hawthorne.	S. Minions	$\frac{3}{7\frac{1}{2}}$		12	do		55 00 160 00
Eastman's Springs and Railway			10	10	do		40 50
Station Eauclaire and Railway Station	W Mackey	1 2 1 4	$\frac{12}{6}$	$\frac{12}{12}$	do		40 56 40 00
Eberts and Railway Station	A. Robertson	10 yds		12	do		21 00
Eden Wills and Guelph Eden Valley and Main Post Road.	A. Middleton	16	6	$\frac{12}{9}$	do	(to Dec. 31, '88)	$ \begin{array}{r} 288 & 00 \\ 22 & 50 \end{array} $
do do	R. Nugent	1,	3		do	from do	1.2 50
Edgar's Mills and Railway Station. Edgeley and Thornhill Station	A. Winger	$2^{\frac{1}{2}}$			do		$\frac{40\ 00}{124\ 80}$
Edgington and Trout Lake	J. H. Holton	8	1	12	do		85 00
Edmonton and Railway Station Edwardsville and Molesworth	W. Goulding S. Lougheed	$4^{\frac{1}{2}}$	$\frac{6}{2}$		do	16 days (to June	30 00
	- J					16, '88)	15 87
Egan Creek and L'Amable Eganville and Golden Lake	J. A. Smith S. Sunstrum sr	$\frac{6}{12}$		12	do do		52 00 144 00
Eganville and Pembroke	M. J. McCann	26	3	12	do	7.7.7.1.100	334 00
Egbert and Changing Post Egerton and Mount Forest	I. Hunter	$\frac{3}{16\frac{1}{3}}$	$\frac{6}{3}$		do	(from July 1, '88)	56 25 300 00
Eglington, Toronto and Yorkville.	J. Hendry	$4\frac{1}{2}\&1\frac{7}{2}$	6 & 12	12	do		360 00
Egmondville and Seaforth	D. Hay	$\frac{1}{3}$	$\frac{6}{4}$		do do	(from Oct. 1, '88). (to Oct. 31, '88).	40 00 40 83
Elcho and Smithville	W. Hunt H. Hunsburger.	8	2	12	do	(10 Oct. 31, 88)	104 00
Elder and Rosemont	C. Conn	74	$\begin{bmatrix} 2 \\ 6 \end{bmatrix}$		do do	(to Dec. 31, '88).	88 00 37 50
Elder's Mills and Railway Station . do do	A. McKinnon	4	6	3	do	from do .	12 50
Eldorado and Empey	L. Empey 24	3		6	do	(from Oct. 1, '88).	15 00

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
						\$ cts.
THE 1 1 TO C 4	T 7710	41	7	10	41	
Elford and Essex Centre Elia and Railway Station		41/2	1 6	12 mon	ths	50 00 75 00
Elizabethville and Port Hope	T. Roberts	32 r.t.	6	12 do	**************	490 00
Elliott and Manion	J. DeWitt	7	2	12 do		50 00
Ellisville and Seely's Bay	J. MacMillan	25 n +	2 6	12 do 12 do		55 00
Elmbank and Malton Elmwood and Malcolm	A. A. Kerr	25 F. 6.	3	12 do		367 00 59 00
Elmwood and Railway Station	F. Haller	1	12	12 do		50 00
Elora and Inverhaugh	R. Ariss	$\frac{4\frac{1}{2}}{}$	2	12 de		60 00
Elora and Pentland Elora and C.V. Railway Station		5	$\frac{2}{12}$	12 do 12 do		60 00 75 00
Elora and W. G. & B. Railway	I. Diggai	2	12	12 00		15 00
Station	M. Salvidge	1	36	12 do		137 48
Elora and Salem	J. R. Wissler	1	6	12 do	(A., St., 20, 200)	40 00
Elphin and McDonald's Corners Elsinore and French Bay	H Shannon	$\begin{array}{c c} & 6 \\ \hline & 5 \end{array}$	$\frac{2}{1}$	6 do 12 do	(to Sept. 30, '88).	28 50 40 00
Emberson and Port Sydney		12	1	12 do		90 00
Embro and Harrington, &c	W. Vannatter	1	26 & 30	12 do		340 00
Emery and Railway Station	J. Watson			12 do		50 00
Emmett and Wilno Emsdale and Fern Glen		5	$\frac{1}{2}$	12 do 12 do		50 00 80 00
Emsdale and Railway Station			5	6 do	(to Sept. 30, '88).	19 50
do do	do	3,4314	12	6 do		31 24
Enfield and Oshawa	W. J. Fisher	14	$\frac{3}{2}$	12 do		124 80
Ennis and Loretto Ennismore and Frankhill	C. Lowes	$\frac{3\frac{1}{2}}{6}$	1	12 do 12 do		50 00 60 00
Ennismore and King's Wharf		. 9	$\frac{1}{2}$	12 do		100 00
Enterprise and Trafford	M. Whelan	9	1	12 do		45 00
Enterprise and Verona	N.,T.&Q.Ry.Co.	$\frac{10}{8}$	$\frac{6}{2}$	3 do 12 do	(from Jan. 1, '89).	50 60
Enterprise and Wilkinson Epping and Flesherton	J. C. Curry.	151	6	12 do 9 do	(to Dec. 31, '88).	80 00 300 00
do	G. Mathewson	$15\frac{1}{2}$	6	3 do	from do	99 75
Epping and Meaford	W. J. Cann	14	6	12 do		301 25
Eribsville and Waterloo Erie and Jarvis	J. Simmermach'r	5	$\frac{1}{2}$	12 do 12 do		$\frac{45}{72} \frac{00}{00}$
Erin and Guelph	W. Moore	20	$\bar{6}$	12 do		450 00
Erin and Guelph Erin and Railway Station		1	12	12 do		50 00
Erinsville and Napanee Erskine and Markdale	J. Grange	$\frac{21}{6}$	$\frac{6}{2}$	12 do 6 do	(to Sant 20 200)	$\begin{array}{cccc} 475 & 00 \\ 25 & 00 \end{array}$
	J. S. Lougheed	6	$\frac{2}{2}$	6 do	(to Sept. 30, '88). from do	25 00
Eskdale and Tiverton		5	3	12 do		90 00
Essex Centre and Gesto		$\frac{6\frac{1}{2}}{2}$	6	12 do		139 00
Essex Centre and Leamington Essex Centre and Railway Station.		22	12 18	12 do 12 do		$704 \ 17$ $117 \ 00$
Essonville and Haliburton		16	1	3 do	(to June 30. '88).	21 25
Ethel and Railway Station	W. Spence	$6 & \frac{7}{8}$	6	12 do		80 00
Ettrick, Ilderton and Ry. Station.			3&12			175 00
Everett and Railway Station		13	$\frac{6}{12}$	12 do 12 do		335 80 60 00
Exeter and Kirkton	W. Carley	$1\overline{2}^{\overline{16}}$	6	12 do		375 00
Exeter and Railway Station	C. Snell	1	24	12 do	and extra trips	162 30
Exeter and Sarepta	W. Reynolds	7	3	12 do		78 00
Fairfield East and Fairfield Station	A. C. Johns	1 6	3	12 do		29 65
Fair Valley and Warminster	R. C. Hipwell	4	3	12 do		72 00
Fairview and Stratford		9		12 do		156 00
Falkenburg and Mail Catching Post Falkenburg and Ullswater	do	$12\frac{1}{2}$	$\frac{6}{3}$	12 do Season	1888	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Falkland and Paris	W. T. Walker.	3	3		ths.	50 00
Farewell and Kenilworth	W. L. Morrison.	6	6	12 do		156 00
Farewell and Wagram	do	3		12 do	• • • • • • • • • • • • • • • • • • • •	34 00
Fargo and Railway Station	W. H. Hunter	300 vd	24	$\begin{array}{ccc} 12 & \mathrm{do} \\ 12 & \mathrm{do} \end{array}$		$\begin{array}{cccc} 64 & 00 \\ 50 & 00 \end{array}$
Farmersvile and Mallorytown	S. L. Hogeboom.	12	6	9 do		$221 \ 25$
do do	do	$13\frac{1}{2}$	6	3 do	from do	120 00
	2	9				

Name of Route,	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		· Period.	Amount.
	,					\$ cts.
Farmersville and Plum Hollow	V. W. O. Sher	-				1
Farquhar and Lumley	man	6	$\frac{2}{2}$		onths	58 00
Farran's Point and Osnabruck	J. Fotton	$4\frac{1}{2}$	Z	12 d	lo	62 50
Centre	C. Stata		6		0	97 00
Farran's Point and Railway Station Fawkham and Mail Catching Post.	W. Carrick	2	6		0 ,	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Fawn and Mail Catching Post	J. M. Smith A. Gaudaur	$\frac{1}{2}$	3 3		o (to Sept. 30, '88).	20 00
Felton and Russell	C. York	4	2	12 d	o from do	17 00 50 00
Fenaghvale and St. Amour Fenelon Falls and Railway Station.	M. Poirier	$ 2\frac{1}{2}$			0	25 62
Fergus and Living Springs	F. J. Armstrong.	. 6	2	12 d	0 ,	80 00 75 00
Fergus and Railway Stations	J. C. Morrow	$13^{\frac{3}{4}}$	$\frac{12}{2}$		0	$\begin{array}{cccc} 250 & 00 \\ 150 & 00 \end{array}$
Fergus and Shiloh. Ferguson's Falls and Perth	T. Haley	18	6	12 d	0	390 00
Fernhill and Poplar Hill	D. D. Owen	45	$\frac{3}{12}$		0	$100 00 \\ 65 00$
E'eversham and Elesherton.	G. Park	1 14	6	12 d	0	375 00
Feversham and Lady Bankdo	W. T. Paul J. Poole	5 5	1	9 d	o (to Dec. 31, '88). o from do	37 50 10 00
Fingal and Port Talbot	J. Brown	7	3	12 d	o	125 00
Fingal and St. Thomas	G. Penwarden	7	$\begin{array}{c} 6 \\ 6 & 12 \end{array}$	12 d 12 d		$149 00 \\ 190 00$
Fingerboard and Sonya	T. Moase	$2\frac{1}{2}$	3	12 d	0	80 00
Fingerboard and Sonya Fish Creek and Granton Fisherville, Nelles'Corners and Rail-	W. Blatchford	5	2	12 d	0	60 00
way Station	o. Memenbacher	43	6 & 12	9 d		119 25
do do Fleetwood and Franklin	J. Orth W. Stacy	$\begin{pmatrix} 4\frac{1}{2} \\ 2 \end{pmatrix}$	$\frac{6 \& 12}{4}$	3 d		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Flesherton and Railway Station	P. Munshaw	13	24	12 d	0	156 00
Flesherton and Vandeleur Flesherton Ry. Station and Priceville	J. Warling J. Watson	$\frac{6\frac{1}{2}}{4}$	3 6	12 d	o 19 dys(from Sept.	90 00
			10		12, '88)	55 11
Fletcher and Railway Station Flinton and Madoc.	R. Simmons	194	$\frac{12}{6}$	12 d		45 00 555 75
do do	R. E. Jones	19	6	3 de	o from do	131 25
Florence and Oakdale Florence and Rutherford	A. Lourie J. Conbrough	$\begin{bmatrix} 6 \\ 6 \end{bmatrix}$	$\frac{2}{3}$	12 de		$ \begin{array}{ccc} 55 & 00 \\ 100 & 00 \end{array} $
Flower Station and Railway Station	G. W. White S. M. Lyon	6	$\begin{array}{c} 12 \\ 12 \end{array}$	9 de	o (to Dec. 31, '88).	7 50 3 75
Fonthill and North Pelham	J. A. McQueen	10	3		from do	220 00
Fordwich and Newbridge Fordwich and Railway Station	W. Chapman	41/2 & 8	2 & 6	12 de		$15972 \\ 11200$
Forest and Kavenswood	P. McCallum	9 1	3	12 de		100 00
Forest and Railway Station Foresters' Falls and Ry. Crossing.	P. Smith	$400 \mathrm{\ yd}$	6	12 de	· · · · · · · · · · · · · · · · · · ·	43 68
	Co	17		13 do		563 33
Fort Erie and Garrison Road Fort Erie and Railway Stations	J. Hershey G. Lewis	$\frac{4}{1\frac{1}{2}}$	$\begin{bmatrix} 2\\48 \end{bmatrix}$	3 do 12 do	(to June 30, '88).	$\begin{array}{cccc} 20 & 00 \\ 360 & 00 \end{array}$
Fort William and Railway Station.	C. McVicar	4	12	12 de		250 00
Fort William West and Ry. Station. Fournier and Routhier	A. McLaren J. O. Poirier	6		12 do		$\begin{array}{ccc} 120 & 00 \\ 189 & 00 \end{array}$
Fowler's Corners and Peterboro'	A. Tully	$\frac{7\frac{1}{2}}{7^{\frac{1}{2}}}$	2	3 do	(to June 30, '88).	26 00
do do Foxmead and Railway Station	A. R. Reid J. Hadden	$7rac{7}{2}$	$\begin{bmatrix} 2 \\ 6 \end{bmatrix}$	9 do 12 do		67 50 30 00
Franconia and Perry Station	A. Clark \dots	7		12 do		137 00
Frankford and Railway Station Frankford and Stockdale	H. S. Bowerman	200 ya		$egin{array}{ccc} 12 & ext{dc} \ 12 & ext{dc} \end{array}$		$\frac{78}{36} \frac{00}{00}$
Franklin and Railway Station	J. Hadden	100 ft.		12 do		70 00
Frank's Bay, North Bay and Sturgeon Falls	J. M. Smith	15 w 20 s		12 do		70 00
Franktown and Railway Station Frankville and Railway Station	W. Lightbody	$\frac{1\frac{1}{2}}{11}$		$\frac{12}{12}$ do		$\begin{array}{ccc} 150 & 00 \\ 239 & 00 \end{array}$
Freeborn and Peffer's Crossing	J. Freeborn	60rods		$\frac{12}{12}$ do		30 00
	26					

Name of Route. Name of Contractor. Section Period. Amount.					·	
Freeland and Webster's Corners. J. W. Preston 1 3 3 12 do 90 00	Name of Route.	of	Distance in Miles.	No. of Trips per Week.	Period.	Amount.
Galt and Gelem Morris	Freelton and Mountsberg. Freeman and Railway Station Frome and Railway Station Fullarton and Gowrie Fuller and Thomasburg	B. Johnson E. B. Freeman J. Arnold W. H. Woodley M. Mitts	$\begin{array}{c c} 3\frac{1}{2} \\ \frac{1}{16} \\ 1\frac{1}{2} \\ 3 \\ 4\frac{1}{2} \end{array}$	30 6 3 2	12 do	20 00 90 00 93 60 78 00 57 00 48 00
Carnet and Railway Station	Galt and Glen Morris. do do Galt and Puslinch. Galt and Railway Stations. Gamebridge and Railway Station. Gananoque and Seely's Bay. Gananoque and Street Letter Boxes Gananoque and Wilstead. Gananoque Station and Marble Rock	D. Munro W. Colom J. McLean G. Hancock S. McDougall W. Kenny E. Keating N. Gardner	$ \begin{array}{c c} 7 \\ 7 \\ 15 \\ 1\frac{3}{4} \\ 14 \\ 1 \\ 4 \end{array} $	$\begin{array}{c} 6 \\ 6 \\ 3 \\ 24 \\ 12 \\ 2 \\ 12 \end{array}$	9 do (to Dec. 31, '88). 3 do from do 12 do	217 50 55 75 215 00 225 00 115 00 145 00 156 00 94 00
Gelert Station and Minden	holme	W. R. Cunning-ham	1 18 r.t. 10&13	3 12 2 3	Season 1888-89	29, 00 40 00 108 75
Germania and Uffington Road. W. Stamp. 2½ 12 do 75 00 Germania and Uffington Road. W. Stamp. 2½ 12 do 75 00 00 Gilbert's Mines and Picton. J. A. Blain. ½ 24 12 do 60 00 00 00 00 00 00 0	Georgetown and G. T. Ry. Station Georgetown and N. & N.W. Ry. Sta-	Watson McCollum &	3 4 1 2	12 6 18	12 do	24 96 4 80 125 00
Glammis and Pinkerton Station	Georgina Island and Sutton West Germania and Uffington Road Gilbert's Mines and Picton Gilford and Railway Station Gilmour and Railway Station	W. Stamp A. I. Ryckman. J. A. Blain J. Caverly	$\begin{array}{c c} 6 \\ 8 \\ 2\frac{1}{2} \\ 10\frac{1}{2} \\ \hline 20 \text{ ft.} \end{array}$	6 2 3 3 24 12	12 do	$ \begin{array}{r} 50 & 00 \\ 75 & 00 \\ 120 & 00 \\ 60 & 00 \\ 12 & 50 \end{array} $
Station and Sinciarville J. R. Wilson 10 13 3 9 do from do 139 50 Glanmire and Millbridge J. Lummiss, sr. 8 1 12 do 52 00 Glanworth and Railway Station J. Turnbull 1 6 12 do 62 40 Glen Annan and Railway Station A. An Dunham 4 1 2 12 do 39 00 Glen Annan and Railway Station A. Anderson 2 r.t. 6 6 do (to Sept. 30, '88) 149 50 Glen Annan and The Corners W. Shurtleff 2 2 r.t. 6 6 do from do 175 00 Glencoe and Kilmartin D. B. McIntyre 4 12 12 do 60 60 00 Glencoe and Kilmartin D. B. McIntyre 4 12 12 do 60 85 00 Glencoe and Strathburne J. Smith 2 2 6 12 do 80 00 Glencolin and Springfield S. T. Young 3 3 12 do 80 00 Glendale and White Oak C. Flawn 2 4 3 12 do 80 00 Glen Farrow and Wingham W. McKersie 6 2 2 2 do 50 00 Glen Huron and Railway Station J. Hamilton 1 1 6 12 do 115 00 Glenia and Loring A. W. Sinclair 21 1 3 3 40 60 60 224 00 Glen Major and Myrtle W. R. Derby 7 6 12 do 224 00 Glenmajor and Kinglake E. Gale 10 10 2 21 20 00 117 32	Gladstone and Harriettsville Glammis and Pinkerton Station Glamorgan and Millbrook Glandine and Railway Station Glanford Station and Ry. Station do do	L. McMurray J. McKeenan K. Kennedy E. Pogue T. J. Wilkinson . H. Clark	$\frac{9}{6}$ $\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$	6 2 3 6 6	12 do	$\begin{array}{c} 268\ 00 \\ 78\ 00 \\ 70\ 00 \\ 11\ 70 \\ 37\ 44 \end{array}$
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	do do Glanmire and Millbridge Glanworth and Railway Station Glastonbury and Kaladar Glen Annan and Railway Station Glenarm and Woodville	do J. Lummiss, sr J. Turnbull A. A. Dunham A. Anderson H. Ferguson	13 8 4 ¹ / ₂ 14 22 r.t.	$\begin{array}{c} 3 \\ 1 \\ 6 \\ 2 \\ 12 \end{array}$	9 do from do	139 50 52 00 62 40 39 00 40 00
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Glenburnie and The Corners. Glencairn and Railway Station Glencoe and Kilmartin. Glencoe and Strathburne. Glencolin and Springfield.	J. H. Pethick W. Shurtleff W. Grieve D. B. McIntyre J. Smith S. T. Young	22 r.t.	6 12 3 6 3	6 do from do 12 do	175 00 60 00 90 00 85 00 120 00 80 00
	Glen Farrow and Wingham. Glen Eden and Mount Forest. Glen Huron and Railway Station. Glenila and Loring. Glen Major and Myrtle Glenmeyer and Kinglake.	W. McKersie C. Hunt J. Hamilton A. W. Sinclair W. R. Derby E. Gale	$egin{array}{c} 6 \\ 5 \\ 1rac{1}{2} \\ 21 \\ 7 \\ 10rac{1}{2} \end{array}$	$\begin{array}{c} 2 \\ 6 \\ 6 \\ 1 \\ 6 \\ 2 \end{array}$	12 do	75 00 62 50 115 00 37 50 224 00 117 32

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	Period.	Amount.
					\$ ets.
Glen Millar and Trenton	O. Weston	$3\frac{1}{2}$	6	12 months	100 00
Glenmore and Maitland	W. Covill	$\frac{9}{8}$	3 2	12 do	145 00
Glenoak and Longwood	L. J. Hixon	3	1	12 do Season 1888-89	69 00 10 50
Glenrae and Railway Station	S. Rae			12 months	20 00
Glen Robertson and North Lan-					000 00
Glen Robertson and Ry. Station Glen Robertson and Ste. Anne de	M. Besner W. T. Robinson.	$\frac{25}{8}$	$\begin{array}{ c c } & 6 \\ 24 \end{array}$	12 do	300 00 60 00
Prescott	A. Pilon	7	6	12 do	115 00
Glen Ross and Railway Station	G. T. Iveson		3	12 do	30 00
Glen Roy and Munro's Mills		4	3	12 do	88 63
Glenshee and Lynedoch	U. Jones	$\frac{11\frac{1}{4}}{3}$	$\frac{6}{2}$	12 do	300 00 50 00
Glenvale and Sharpton		3	2	12 do	60 00
Goderich and Kintail	H. Toombs	14	6	12 do	349 00
Goderich and Lucknow		23	6 24	12 do	398 00
Goderich and Railway Station Godfrey and Westport	do M. Grady	$\frac{1}{20}$	6	12 do	149 76 246 00
Goldfield and South Finch	M. McLean	$2\frac{1}{2}$	3	12 do	55 00
Goldsmith and Leamington	G. B. Reid	10	3	12 do	125 00
Goldstone and Railway Station Gooderham and Kinmount	J. W. Cragg	$\frac{1\frac{3}{4}}{21}$	$\frac{6}{2}$	12 do	99 84 225 00
Gooderham and Ursa	S. Kettle	6	ī	12 do	30 00
Goodstown and Richmond	T. H. Mills	3	2	12 do	29 50
Goodwood and Railway Station	M. Chapman	8	12 12	12 do	60 00
Gordon and Railway Station Gore Bay and Little Current	H. May	50 & 35		Part of Seasons 1887-88 and 1888-89.	50 00 400 00
Gore Bay and Long Bay	G. W. Hodgkin-	10	1	12 months	75 00
Gore Bay and Meldrum Bay	R. T. Hall	58	1	12 do	365 00
Goring and Rocklyn. Gormley and Unionville	J. Sparling	4	2	12 do	50 00
Gorrie and Railway Station	J. Lunan.	25 r.t.		12 do	380 00 40 00
do do	do				92 59
Gorrie and Seaforth	S. Walsh	$ 28\frac{1}{2}$	6	12 do	520 00
Goulais Bay and Sault Ste. Marie	A. McAuley	26	$\begin{vmatrix} 1 \\ 3 \end{vmatrix}$	12 do	234 00
Gowanstown and Kurtzville Gowanstown and Railway Station	H. Markle	1	6	12 do	97 00 58 00
Gowanstown and Wallace Grafton and Railway Station	do	$3\frac{1}{2}$	6	12 do	100 00
Grafton and Railway Station	G. Lumley	1	7	12 do	89 72
Grand Valley and Peenabun.	W. Osbourne	11 31	$\frac{2}{2}$	12 do	$\begin{array}{c} 110 & 00 \\ 25 & 00 \end{array}$
Grand Valley and Peepabundo	J. Loree	31		6 do from do .	18 50
Grand Valley and Railway Station Grassett's Station and Michipicoten	S. McDonaid	1	12	12 do	39 00
River.	W. Spence	55	2	12 do	288 00
Grassy's Corners & Smithville Road Gravenhurst and Leg Lake	J. Paterson	$\frac{2}{11}$	$\frac{2}{1}$	12 do 12 do	$\begin{array}{c} 35 & 00 \\ 52 & 00 \end{array}$
Gravenhurst and Port Carling	C. McCulley	. 28	2	Part of Season 1888-89	25 55
do do Gravenhurst and Railway Station	W. Foreman	30	2	Balance of do	134 00
Gravenhurst and Railway Station. Gravenhurst and Uffington	G. F. Marter	11	24	12 months	249 60 194 00
Gravenhurst and Walker's Point	W. Walker	14	1	Part of Seasons 1887-88 and 1888-89.	63 00
Gravenhurst, West Gravenhurst				Wild 1000 30	. 00 00
and Wharf	W. McDivitt	2w.1s.	6		140 00
Greenbank & Blackwater Junction do do	W. Taylor	$\begin{vmatrix} 6 \\ 6 \end{vmatrix}$			46 25 123 75
Green Bay and Little Current	C. Skippen	12	1		70 00
Greenfield and Railway Station Green Point and Picton	A. McDougall.	1	24	12 do	125 00
Green Point and Picton	C. Revnolds	. 12	1 . 1	14 days (to April 14, '88).	1 96
do do Green River and Railway Station.	do	12	2	Balance of season '88-'89	

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	Period.	Amount.
Greenview and Monteagle Valley. Gregory and Port Carling. Grenfel and Railway Station. Gresham and Paisley. Griffith and Matawachan. Grimsby and Smithville. Grimsby Park and Railway Station. Grimston and Keady. Groveton and Spencerville. Guelph and Hamilton. Guelph and Ponsonby. Guelph and Street Letter Boxes. Gunter and Railway Station. Guthrie and Oro Station.	W. Gregory H. Parr R. Cruickshank J. McGregor J. H. McCollom N. Phelps R. Keys J. McAuley J. Herriman J. L. Valley J. D. Johnstone J. H. Gunter	$\begin{bmatrix} 20 \\ 10 \\ 8 \\ 4 \\ 4 \\ 31\frac{1}{2} \\ 12 \end{bmatrix}$	2 2 1 12 24 2 2 6 3	12 months. Special trip. 12 months. 12 do 19 do 19 do 19 do 19 do 19 do 19 do (from July 1, '88)	\$ cts. 50 00 1 50 60 00 160 00 52 00 389 00 38 00 50 00 48 00 1,000 00 225 00 250 00 80 00 36 00
Guthrie and Steel	J. Steele J. Fleming	$\begin{bmatrix} & 3 \\ & 3 \\ & 4 \end{bmatrix}$	36 6	3 do (to June 30, '88). 12 do (less fine) 12 do	139 00 120 00
Hagersville, Selkirk and Railway Station Hagersville, Selkirk and Railway Station Haliburton and Kennaway	L. Brown J. E. Holmes do	14 14 25 38	$\begin{bmatrix} 6 \\ 6 \\ 1 \\ 1 \end{bmatrix}$	7 do (to Oct. 31, '88) 5 do from do . 3 do (to June 30, '88). 9 do from do .	150 50 130 42 58 75 213 75
Haliburton and Railway Station Haliburton and Wicksteed Hallville and Kemptville Hamilton and Lowville Hamilton and North Barton	J. F. Young D. H. Anderson J. Dickinson D. Harris A. W. Swazie	10 13 19 21	12 1 3 6 6	12 do	50 00 40 00 235 00 403 00 50 00
Hamilton and Railway Stations Hamilton and Stony Creek Hamilton and Street Letter Boxes. Hampton and Solina Hanover and Railway Station Harkaway and Markdale	G. Gibbons J. Brundle E. B. Cryderman W. Reid	7	$\begin{array}{c} 6 \\ \text{As req} \\ 3 \\ 12 \end{array}$	12 do	1,158 00 250 00 825 00 50 00 89 72 52 00
Harley and Hatchley Station. Harley and New Durham Harlock and Seaforth.	B. Powell R. Cavin	4 5 17 13	2 6 3	12 do	75 00 132 00 48 28
Harrisburg and St. George	G. Brockbank M. O. Riley E. Williamson C. H. Ward		$\begin{array}{c} 6 \\ 3 \\ 12 \& 24 \end{array}$	May 18, '88)	243 08 5 00 200 00 45 00 224 64
Hartford and Waterford Hartsmere and Herman do do Harwich and Railway Station Havelock and Railway Station	J. Bremner do	3	$\begin{array}{c c} 1 \\ 2 \\ 6 \\ 18 \end{array}$	12 do	225 00 26 83 37 50 217 00 117 50 13 86
do Havelock and Tilton Hawkestone and Railway Station Hawkesville and Macton Hawtrey and Northfield Centre, &c. Hawtrey and Railway Station	J. W. Hainer C. J. Treffrey	12	$\begin{bmatrix} 3 \\ 12 \\ 6 \\ 6 & 12 \end{bmatrix}$	12 do	138 00 43 98 156 00 394 00 25 00
Hay and Railway Station Hay Bay and Napanee Hayburn and Parma Hayesland and Mill Groye. Haysville and New Hamburg	A. Walper N. Outwater E. Loyst E. Young R. C. Tye	$egin{array}{c} rac{1}{16} \ 1 \ 19 \ 2 \ 3rac{1}{2} \ 3rac{1}{2} \ \end{array}$	12 2 3 6 6	12 do	100 00 189 00 50 00 116 00 144 00
Hazledean and Stittsville	D. McIntyre A. J. Selwood	$3\frac{1}{2}$ 3 $\frac{1}{16}$ $4\frac{1}{2}$	$\begin{bmatrix} 2 \\ 6 \end{bmatrix}$	12 do	75 00 40 00 40 00 65 00

Name of Route,	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	Period.		${f Amount.}$
Hensall and Railway Station Hensall, Zurich and Ry. Station. Hepworth and Railway Station. Hereward and Railway Station. Hereward and Railway Station. Hewitt and Marshville Station Hiawatha and Peterboro'. do do Hickson and Railway Station. Highgate and Railway Station. Highgate and Turin. Hillier and Railway Station. Hillier and Rosehall Hillman and Leamington. Hillsburgh and Railway Station. Hillsburgh Station and Marsville. Hillsburgh Station and Marsville. Hinch and Newburgh. Hintonburg and Mechanicsville. Hoath Head and Owen Sound. Hockley and Mono Centre. Holland Centre and Lily Oak. Holland Centre and Ry. Station. Holland Landing and Ry. Station. Holly Park, King and Nobleton. Holmesville and Porter's Hill. Holmesville and Railway Station.	H. Doan. T. Murdock T. Kemp. D. Brown J. B. Hewitt. W. Troop. O. A. Cragg L. Elsley D. Teetzel do H. Palmer R. McCartney R. Manery. J. Carmichael. J. Hanna. C. Waugh B. Lewis. H. Lapointe M. Dealy R. Colwell J. Bruce. C. Price W. Luck, D. O. Crossley A. Knox	12 11 15 15 15 15 15 15 15 15 15 15 15 15	12 6 12 12 12 6 6 6 2 2 12 12 12 8 12 3 2 6 6 6 3 3 1 1 6 6 6 6 6 7 1 1 1 2 1 6 6 6 6 6 6 6 7 1 1 1 1 1 1 1 1 1 1 1	12 do 12 do 12 do 12 do 12 do 12 do 13 do 14 do 15 do 16 do 17 do 18 do 19 do 10 do 11 do	(less fine) (to Dec. 31, '88) from do	\$ cts. 99 84 120 00 320 00 158 00 128 00 45 00 108 75 36 25 20 00 144 00 90 00 93 60 106 00 75 00 80 00 325 00 240 00 70 00 40 00 110 00 74 88 368 00 75 00 50 00 74 72
Holstein and Murdock Holstein and Nenagh Holstein and Railway Station Holstein and Railway Station Holt and Mount Albert Honeywood and Horning's Mills do do Hoodstown and Huntsville do do Hopetown and Lanark Hopetown and White Hopeville and Swinton Park. Horning's Mills and Shelburne Sta-	J. Ostic	81 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	1	12 do 12 do 12 do 6 do 9 do 3 do 12 do 15 do 12 do	(to Sept. 30, '88). from do (to Dec. 31, '88).	234 00 53 00 125 00 62 50 99 00 89 82 30 00 75 00 55 00
tion. Horning's Mills and Singhampton. Housey's Rapids and Washago do do Howe Island and Kingston. Humber and Weston. Humber Bay and Railway Station.	H. Nichols. S. C. Tyler. J. O'Brien C. R. Dade M. L. Carlisle W. F. Duck D. Stapf. D. Kernaghan	150yds	$egin{array}{c} 12 \\ 12 \\ 24 \\ 12 \\ 12 \\ 3 \\ \end{array}$	12 do 6 do 3 do 9 do 12 do	(to Sept. 30, '88). (to June 30, '88). from do and arrears (to Dec. 31, '88). from do	170 00 127 50 33 75 93 75 255 29 300 00 30 00 10 00 156 25 124 80 50 00 96 00 40 00
Indian River and Ry. Station Ingersoll and Lakeside. Ingersoll and Peebles. Ingersoll and Port Burwell. Ingersoll and Ry. Station. Ingersoll and Street Letter Boxes. Inglewood and Ry. Station. Inkerman and Iroquois. Innerkip and Ry. Station. Innisfil and Stroud. do International Bridge and Ry. Station	W. Brock. B. Dennis. E. Gray J. Shannon W. McKim J. Graham A. Servis G. Hotson. T. W. Boyes E. Taylor.	3 3 4	$\begin{array}{c} 6 \\ 2 \\ 6 \\ 12 \\ 18 \\ 12 \\ 6 \\ 12 \\ 6 \\ 6 \end{array}$	12 do 12 do 6 do	(from July 1, '88)	+80 00 475 00 59 00 855 00 112 32 123 00 52 00 356 92 108 00 57 50 57 50 150 00

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	Period.	Amount.
Inverhuron and Tiverton. Invermay and Ry. Station. Inwood and Ry. Station. Iona and Ry. Station. Irena and Rowena Irish Creek Station and Merrickville Islington and Ry. Station. Ivy and Thornton. do Ivy Lea and Lansdown. Jackfish Bay and Ry. Station. Jaffa and Orwell. Janetville and Pontypool. Jarvis and Ry. Station. Jefferson and King Station. Jefferson and King Station. Jellyby and Ry. Station. Jermyn and Lang. do Jocelyn and Marksville. Jockvale and Manotick Johnson's Mills and Zurich. Jones Falls and Moreton.	A. Neelands. J. M. Courtright W. Fletcher. T. S. Carter. D. Crozier T. Musson. J. Graham. T. Brown. J. Ivey. S. A. Eakins. W. Faunt R. Gillis. E. A. Lea G. Harper A. Wing. A. C. Brown. G. English C. Young. J. Fermoyle D. Spencer.	25 yds 2 3 9 1 4 4 4 4 29 r. t. 9 3 3 20 yds	12 3 6 6 6 6 6 2 12 2 6 6 8 8 6 8 6 8 3 3 3 3 3 3 3 3 3 3 3 3	12 months	\$ cts. 70 00 156 00 30 00 125 00 80 00 300 00 93 60 75 00 59 50 53 75 50 00 475 00 218 40 320 00 22 91 56 25 17 50 90 00 100 00 49 00 18 75
do do Jordan and Pelham Union. Juddhaven and Port Carling. do do	A. Scott H. N. Crosby	$\begin{bmatrix} 3\\4\\14\\14\\7\frac{1}{2}\end{bmatrix}$	$egin{array}{c} 2 \\ 3 \\ 2 \\ 1 \\ 1 \\ 3 \\ \end{array}$	3 do (to June 30, 88). 9 do from do 12 do	18 73 49 00 60 00 9 50 40 00 111 40
Katrine and Catching Post. Katrine and Orange Valley. Kearney and Emsdale Station. Kearney and Ravensworth. Kearney and Sand Lake. Keene and Ry. Station. Keith and Tupperville. Keldon and Shelburne. Kelso and Powassan Station. Kelso and Christie's Crossing. Kemble and Wolseley. Kemptville and Merrickville. Kemptville and Merrickville. Kemptville and Ry. Station. Kemptville and Ry. Station. Kemptville and Routh Gower. Kenilworth and Petherton. Kenilworth and Railway Station. Kenniworth and Rilway Station. Kenney and Mitchell Road. Kenney and Mitchell Road. Kense and Roach's Point. Khiva and Shipka. Kilgorie and Whitfield. do do Killaloe and Ruby Killarney, Little Current and Mani-	R. White. A. J. O'Neil. J. C. Harvey. J. Hunter J. Frost. R. Killins. W. Brown. H. Anderson. D. Smith. J. Hearn. C. W. Putnam. W. Dickinson. A. W. Tomkins. M. Enright. C. J. Gordon. P. A. Harrison. J. Kenney. G. B. Shaw. J. Cake. W. Holt, jr. J. Maw. J. Gallagher J. Rankin	$\begin{array}{c} 13 \\ 16 \\ 6 \\ 6 \\ 7 \\ 8 \\ 11 \\ 19 \\ 14 \\ 18 \\ 11 \\ 13 \\ 2 \\ 2 \\ 2 \\ 4 \\ 2 \\ 2 \\ 2 \\ 4 \\ 2 \\ 2$	$egin{array}{cccccccccccccccccccccccccccccccccccc$	12 do	72 00 124 80 40 00 110 00 40 00 45 00 119 00 45 00 100 00 60 00 40 00 40 00 271 44 173 00 125 00 80 00 75 00 80 00 50 00 86 25 39 48 12 50 37 50 90 00
Killyleagh and Thornton Kilmanagh and Mono Road Station Kilmarnock and Smith's Falls Kilworthy and Railway Station Kilworthy and Mail Catching Post Kilworthy and Sparrow Lake Kimball and Railway Station	H. McTaggart W. G. Halliday. G. A. Lehman do A. Wiancko	$\begin{bmatrix} 3\\ 3\\ 8\frac{1}{2}\\ 100 \text{ ft.}\\ 200 \text{ yd}\\ 4\frac{1}{16} \end{bmatrix}$	2 3 2 6 6 2	5 do 21 days (broken period)	500 77 39 76 81 75 105 00 7 50 15 00 60 00 25 00

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Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.			Period.	Amount.
	Contractor.	Dis	No				
Windall and Carlanten	III. I alamatan			110			\$ cts.
Kimball and Seckerton	T. Capes	$\begin{vmatrix} 3 \\ 3\frac{1}{2} \end{vmatrix}$	$\begin{vmatrix} 2 \\ 6 \end{vmatrix}$	12	mon do	ths	$\begin{array}{cccc} 60 & 00 \\ 150 & 00 \end{array}$
Kincardine and Port Elgin	A. McDougall	24	6 30	$\frac{12}{12}$	do		617 00
Kincardine and Railway Station Kincardine and Walkerton King and Railway Station	P. McColl	$28^{\frac{1}{4}}$	6	12	do do	(less fines)	300 00 569 00
King and Railway Station Kingarf and Kinloss	T. Harker	4	$\frac{6}{2}$	12 12	do		50 00 60 00
Kinghurst and Mooresburg	J. A. King	$\frac{1}{5\frac{1}{2}}$	2	6	do		26 00
Kingscourt and Railway Station	J. Pelkey	$\frac{1}{4}$	3 6	12 12	do		39 00 163 00
Kingsmill and Mapleton Kingsmill and Railway Station	C. Hazen	40 r'ds	12	12	do		43 84
Kingston and Newboro' Kingston and Newburg	R. W. Copeland.	41 27	6	12	do	(to June 30, '88).	1,094 00 150 00
dodo	C. H. Finkle	27	6	3 9	do	from do .	450.00
Kingston and Perth Road Kingston and Portsmouth	J. Stoness W. Wilson	$\frac{18}{2\frac{1}{4}}$	6	12	do	(to June 30, '88).	$437 00 \\ 56 25$
do do	T. C. Wilson	$2\frac{1}{4}$	12	9	do	from do .	168 75
Kingston and Kingston Station Kingston and Street Letter Boxes	do B. McConville		$\begin{vmatrix} 6\\24 \end{vmatrix}$	12 12	do		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Kingston Station and Railway Sta-				ļ			, , ,
tion	A. Campbell	100 y.	12	5	ao	24 days (to Jan. 31, '89)	23 99
Kingsville and Oxley	A. Elliott	10	3	12	do		120 00
Kingsville and Pelée Island Kinkora and Sebringville			$\begin{vmatrix} 1\\3 \end{vmatrix}$	6 12	do	(See water service)	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
Kinloss and Lucknow	R. Lithco J. Brownscombe.	10	6 6	6	do	(to Sept. 30, '88).	137 50
do do	A. W. Haldenby	$\begin{array}{c c} 10 \\ 3\frac{1}{2} \end{array}$	2	12	do do	from do .	100 00 40 00
Kinlough and Westford	H. Workman	12 12	6 6	3 9	do do	(to June 30, '88).	
Kinmount and Mount Irwin	D. J. Hartle T. Peacock	7	1	12	do	from do .	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Kinmount and Railway Station Kippen and Railway Station Kirkwall, Rockton and Valens Kleinburg and Railway Station	J. Wilson	145	$\begin{array}{c c} 12 \\ 12 \end{array}$	12 12	do do		
Kirkwall, Rockton and Valens	J. Harper	15r.t.3	6&2	12	do		195 00
Kleinburg and Railway Station	W. T. Simpson	14 13	$\frac{12}{12}$	9 3	do do		112 50 37 50
do do Klock's Mills and Railway Station.	J. B. Klock	1 1	12	12	do		10 00
Knapdale and Newbury Kolapore and Ravenna	J. Macdonald	6 5	1 2	12	$\frac{\mathrm{do}}{\mathrm{do}}$	(to July 31, '88).	40 00 17 33
do do	do .	5	3	8	do	from do .	43 33
Kossuth and Preston	N. Sohrt	$ 5\frac{1}{2}$	2	12	do		70 48
Lafontaine and Penetanguishene	P. Brasseur	101		12	do		110 48
Lake Charles and Oxenden Lakefield and Lakehurst	J. Record	$\frac{5}{19}$	$\frac{1}{3}$	12	do do	(to Dec. 31, '88).	195 00
do do	A. Johnston	19	$\frac{3}{12}$	$\frac{3}{12}$	do	from do .	59 75
Lakefield and Railway Station Lake Opinicon and Perth Road	I. Johnson	1 10	3	12	do do		
Lake Talon and Railway Station. Lalonde and Plantaganet. Lambeth and Raper. Lambton Mills and Ry, Station.	F. McDonald	100 yd	6	12 8	do do	(and arrears) (from Aug. 1, '88)	25 00
Lambeth and Raper	J. Howlett	4	2	12	do	(Irom Aug. 1, 66)	48 00
Lambton Mills and Ry. Station	J. Lynn	74	18	12	do	• • • • • • • • • • • • • • • • • • • •	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Langermoor and Watson's Corners Lanark and McDonald's Corners	J. D. McInnes	14	3	6	do	(to Sept. 30, 1888)	97 00
Lanark and Middleville Lanark and Perth			$\begin{bmatrix} & 6 \\ & 6 \end{bmatrix}$	12 12	do		$170 00 \\ 64 00$
Lanark and Watson's Corners Lancaster and Martintown			3	6	do	(from Oct.1, 1888)	45 00
Lancaster and Martintown Lancaster and South Lancaster	J. Baggallay	$\begin{vmatrix} 12 \\ 1 \end{vmatrix}$	$\frac{6}{12}$	12 12	do do		$\begin{array}{c} 327 & 50 \\ 125 & 00 \end{array}$
Lang and Railway Station	A. Colville	1	12	12	do		90 00
Langside and Lucknow	J. McDonald F. Greer	6 5	$\frac{2}{2}$	9 3	do do	(to Dec. 31, 1888) from do	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Langstaff and Thornhill	J. Langstaff	1 14	6	3	do	(to June 30, 1888)	15 00
do do Langton and Marston	H. Horne E. Long	$\frac{1\frac{1}{4}}{5}$	$\frac{6}{2}$	12	do	from do	$\begin{array}{c} 45 & 00 \\ 44 & 12 \end{array}$
3	32			,			

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	Period.		Amount.
						Φ
						\$ ets.
Lansdown and Sand Bay	W. H. Fodey	$\frac{8\frac{1}{2}}{8\frac{1}{2}}$	$\frac{2}{3}$	5 months (to Aug		43 33
do do Lansdown and Tilley	H. Bradlev	31	1	7 do from 12 do	do	$\begin{array}{ccc} 63 & 70 \\ 30 & 00 \end{array}$
Larkin and Stoco	D. G. Larkin	6	1	12 do		50 00
La Salette and Railway Station	J. Gibbons	$\frac{1}{16}$	24	12 do		60 00
Latimer and Wolf's Corners Laurel and Railway Station	J. Davis	$1 \frac{1}{1\frac{1}{2}}$	$\frac{3}{6}$	12 do 9 do (to Dec. 3	31 1888)	$\begin{array}{ccc} 70 & 00 \\ 69 & 32 \end{array}$
Lavant and Watson's Corners	A. Browning	132	2	12 do		1.00 00
Lavant Station and Plevna	W. C. T. Plotz.	23	3	12 do		390 00
Lawrence Station and Ry. Station.	A. Widdifield	5 5	$\frac{6}{6}$	9 do (to Dec. 3 do from	do	$\begin{array}{c} 116 \ 32 \\ 38 \ 12 \end{array}$
Leamington and Railway Station.		34	24	5 do (from No		20 83
Leaskdale and Sunderland Station.	A. St. John	13	6	12 do		340 00
Lebanon and Moorefield Leinster and Roblin	J. Sinclair	8 7	$\frac{3}{2}$	12 do 12 do		$\begin{array}{ccc} 150 & 00 \\ 67 & 00 \end{array}$
Leitrim and Railway Station	H. Cowan	9	3	12 do	1	198 24
Lemieux and Riceville	A. Chesser	$6\frac{1}{2}$	1	12 do		38 00
Lemonville and Stouffville Leskard and Newcastle	J. McConnochie.	$\begin{array}{c} 5\frac{1}{2} \\ 10 \end{array}$	6	12 do 12 do		181 25 300 00
Leskard and New Park.	R. Fuller	4	2	12 do		52 48
Letter Kenny and Rockingham	J. Gallagher	6	1	12 do		46 00
Lidcote and Railway Station	S. Duncan	$\frac{1\frac{1}{2}}{7}$	$\frac{2}{1}$	12 do		30 00
Lily Lake and Manitowaning Lime Bank and Manotick Station	F Hardy	$\frac{7}{3\frac{1}{2}}$	3	12 do		70 00 60 00
Lime Lake and Marlbank	J. Henderson	4	3	12 do		78 00
Linderwood and Presqu'Isle	G. Shaw	5	1	12 do		40 00
Lindsay and Midland Ry. Station. Lindsay and Victoria Ry. Station.		$\frac{1}{2}$	$\begin{array}{c c} 36 \\ 12 \end{array}$	12 do 12 do		$\frac{320\ 00}{70\ 00}$
Lindsay and Street Letter Boxes		52	18	12 do		250 00
Lindsay and Sturgeon Point	G. Crandall	4	1	6 do (See water		75 00
Linton and LloydtownLinwood and St. Jacob's		$\frac{3\frac{3}{4}}{12}$	6	12 do 12 do		$\frac{142}{398} \frac{50}{00}$
Lion's Head and Wiarton		55	3	12 do 6 do (to Sept.	30, 1888)	300 00
do do	C. Williams	55	3	6 do from	do	175 00
Lisbon and Wellesley	P. Glebe	$\frac{2}{2^{\frac{1}{4}}}$	$\frac{2}{2}$	12 do	90 1000)	$\begin{array}{ccc} 60 & 00 \\ 12 & 00 \end{array}$
Lisburn and Ripley do		$2\frac{1}{4}$	$\frac{2}{2}$	6 do (to Sept. 6 do from	do	12 50
Lisgar and Trafalgar Station	W. J. Marshall.	1	6	12 do		73 52
Lisle and Railway Station	R. Wade	118	12	12 do	1 200)	50 00
Listowel and Molesworthdo do do	E. Terry	11 11	$\frac{6}{6}$	$egin{array}{cccc} 9 & \mathrm{do} & (\mathrm{to} \ \mathrm{Dec.} \ 3 & \mathrm{do} & \mathrm{from} \end{array}$	do	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Listowel and Railway Station	C. Hacking	1 & 3	18&12	12 do (less fine		225 00
Little Britain and Railway Station.	H. Wills	2	12	12 do		100 00
Little Britain and Valentia Little Current and Massey Station.		$\frac{5\frac{1}{2}}{26}$	3 3	12 do 4 do 16 days	from (from	77 00
				Nov.	15, '88).	580 00
Little Current and Sault Ste. Marie			1	Balance of season	ı '88	422 00
Little Current and Sheguindah	W. Caugnill	8 76	$\frac{2}{2}$	Season 1888 Balance of season	1888.	$\begin{array}{ccc} 50 & 00 \\ 250 & 00 \end{array}$
Little Current and Sudbury Little Rapids and Thessalon	J. B. Dobie	3	1	9 mos, (from Jul	ly 1, '88).	19 50
Lattiewood and Tempo	W. H. Wav	0	2	12 months	1 200)	40 00
Lochalsh and RipleyLoch Garry, Maxville and Railway	J. McRitchie	84	3	6 do (from Oc	t. 1, 88).	72 00
Station	A. J. Kennedy	11 & 1	6	12 do		494 00
Loch Winnoch and Railway Sta-		1				
Lockton and Centreville Station	R. Storie	1\frac{1}{2}	$\frac{6}{6}$	12 do 12 do		$\frac{60}{95} \frac{00}{00}$
Londesborough and Railway Sta-	D. Horan, Jr	14	0	12 ao		35 00
tion		58	12	12 do		156 00
London and London East	H. Keys	1 1 1 1 1 1 1	24 12	12 do	1x2 1 200)	$\begin{array}{cccc} 140 & 00 \\ 60 & 00 \end{array}$
London and London West London and Lucan	J. Judge	$16\frac{1}{5}$	6	9 do (from Ju 12 do		399 00
London and Nairn	A. M. Conway	$21\frac{7}{4}$	3	12 do		300 00
London and Odell London and Petersville	T. Tomlinson	21	3	$\begin{vmatrix} 12 & do & \dots \\ 3 & do & (to June \end{vmatrix}$		55 00 20 00
London and I etersyme	9. A. Gura 9	$1\frac{1}{2}$	12	3 do (to June	00).	20 00

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
London and C. P. Railway Station.	T B. Parker	4	6	12 mc	onths	\$ ets.
London and L. H. and B. Railway Station			24	12 d		200 00
Longford Mills and Railway Sta-	M. O'Meara	1414	12	12 d		78 00
tion	J. McPherson	$1\frac{1}{8}$	24	12 d 12 d	0	40 00 80 00
Long Lake and Mountain Grove Londsdale and Marysville	D. Bender	7 4	$\begin{vmatrix} 2 \\ 3 \end{vmatrix}$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	0	84 00 100 00
L'Orignal and Railway Station	Lee & Seguin	3	6	12 d	0	313 00
Lorimer Lake and McKellar Lorneville and Railway Station	C. Morison	8 1	$\frac{1}{12}$	$\begin{bmatrix} 12 & d \\ 12 & d \end{bmatrix}$	0	60 00 60 00
Lowbanks and Boulton Ditch Cross-		34	6	12 d	o ·	80 00
Lowville and Milton Lucan, McGillivray and Railway	W. Griffith	7	6	12 d		200 00
Station	J. Hodgins	3	18 6	12 d 12 d		468 00 46 80
Lucan and Railway Station Lucknow and Railway Station	W. Mellis	434	30	12 d	0	312 00
Lyndhurst and Seeley's Bay	J. Baird	$\frac{1}{8}$	6	12 d 12 d	0	$\begin{array}{c} 62 \ 40 \\ 168 \ 00 \end{array}$
Lynn Valley and Railway Station.	E. Edmonds	$2^{\frac{1}{8}}_{\frac{1}{4}}$	12	12 d	0.	25 00
Lynnville and Railway Station	A. A. Stewart W. Axford	2½ 2½	6	6 d	o (to Sept. 30, '88). o from do	49 50 49 50
McCready and Newbury	D. Ross	5	2	12 d		60 00
McDonald's Corners and McLaren's Depot	S Burns	11	6	6 d	o from (Oct. 1, '88)	119 50
McGregor and Kailway Station	F. A. Reaume	충	12	12 d	0	49 92
McIntyre and Flesherton Road McKenzie, Lake and Maynooth	D. C. McFarlane	$\frac{1\frac{1}{4}}{13}$	6	$\begin{array}{c c} 6 & d \\ 12 & d \end{array}$	o (to Sept. 30, '88).	35 00 88 00
McLean and Mountain Grove	D. C. McLean	8	1	12 d	0	52 00
Maberly and Railway Station Mackie's Station and Railway Sta		1	6	12 d	0	40 00
tion Mackie's Station and Rapides des	J. Dunlap	18	12	12 d	o	24 96
Josephins	do	8	3	12 d		180 00
Macville and Railway Station Madoc and C. O. Railway Station	J. Archdekin	$\frac{1}{7}$	$\frac{6}{12}$	12 d 3 d	o (to June 30, 1888)	55 00 78 00
do do	do	7	6 & 12	9 d	o from do	177 50
Madoc and Midland Railway Station Madoc and Queensboro'	W. Wiggins	$8^{\frac{1}{2}}$	$\frac{12}{6}$		0	$\begin{array}{cccc} 62 & 40 \\ 200 & 00 \end{array}$
Madoc and Queensboro' Magnetawan and Nipissing	C. Thedorf	34	3	6 d	o (to Sept.30, 1888)	374 50
Magnetawan and Seguin Fall's	A. McLachlan A. Best	$\frac{34}{21}$	3 3		o from do o (to Dec. 31, 1888)	374 50 216 00
do do	H. Irwin	21	3	3 d	o from do	72 00
Maidstone and Railway Station Malakoff and North Gower	A. Johnston	4	$\frac{12}{3}$.0	124 80 71 25
Mallorytown and Poole's Resort	G. E. Andrews.	5	6 &3	10 d	o (from June 1, '88)	75 00
Mallorytown and Rockfield Mallorytown and Rockport	J. Herbison	5 12½	3&6		0	80 00 173 00
Mallorytown and Yonge's Mills	B. Burnham	4	2	12 d	0	60 00
Malone and Railway Station do do	C. Thompson	1003	3 3		o (to Sept. 30 , '88) o from do	19 50 19 50
Malta and Severn Bridge	T. Whyte	4	2	12 d	o ·	68 75
Malton and Sandhill	J. Gibson	12 21r. t.	6 6	12 d 11 d	o (to Feb. 28, 1889)	$\begin{array}{c} 321 & 00 \\ 314 & 32 \end{array}$
do do	\mathbb{R} . Bell	23\(\frac{3}{2}\)r.t.	6	1 d	o from do	34 16 108 00
Manchester and Railway Station Mandamin and Vyner	T. Carrick	5	3	12 d	0	132 00
Manilla and Railway Station	E. Z. Yerex J. Milne.	2	12		o (to June 30, 1888)	55 00 55 00
Manilla and Junction	S. Harper	$\frac{2}{1\frac{3}{4}}$	12 12	3 d 1 d	o 4 days (to Nov. 4,	
,		1 2		4 mg	nths 26 days (from	13 69
do do	do			1 1110	Nov. 5, 1888)	66 97

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Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	and the same of th		Period.	Amonnt.
							\$ cts.
Manitamaning and Dusvidence Par	N MoToughlin	34	2	110	*** 0 ***	ths	379 00
Manitowaning and Providence Bay Manotick and Railway Station	T. McCorkill.	31/2		12	do	lons	62 40
Mansewood and Railway Station	A. Wooding	Į į	6	12	do		50 00
Manver's Station and Railway Sta-							
tion	H. McCullough.	14.4		12	do		38 99
Maple and Purpleville Maple and Railway Station	J. Rupert	14r.t.	$\frac{6}{12}$	$\begin{vmatrix} 12 \\ 12 \end{vmatrix}$	do		$\begin{array}{ccc} 219 & 00 \\ 136 & 00 \end{array}$
Maple Island and Whitestone	G. Montgomery.	$10^{\frac{1}{2}}$	1	12	do		40 00
Maple Lake and Minden Maple Lodge and Railway Station. Mar and Red Bay	C. E. Melville	21	1	12	do		80 00
Maple Lodge and Railway Station.	G. Windsor	14	3	12	do		57 50
Markdale and Railway Station	J. McFarlane	7	$\frac{2}{24}$	$\begin{vmatrix} 12 \\ 3 \end{vmatrix}$	do do	(to June 30, 1888)	$\begin{array}{ccc} 77 & 00 \\ 22 & 25 \end{array}$
do do	W. J. Manley	31	24	9	do	from do	66 75
Markdale and Traverston	E. Darcey	8&94		9	do	(to Dec. 31, 1888)	111 75
do do		8&94	2&3	3	do	from do	31 75
Markham and Railway Station Marksville and Tenby Bay		$1\frac{1}{2}$	24	$\frac{12}{12}$	do		$\begin{array}{c} 156 & 00 \\ 65 & 00 \end{array}$
Marlbank and Tamworth	W. Burley	.8	6	12	do		195 00
Marmora and Railway Station	N. McWilliams.	$2\frac{1}{2}$		12	do		125 00
Marmore and Stirling	do	16	6	12	do		400 00
Marmora and Wariston	J. A. Allen	9	1 5	$\frac{7}{12}$	do	(to Oct. 31, 1888)	$\begin{array}{c} 29 & 16 \\ 130 & 00 \end{array}$
Marshville and Railway Station Mattawa and Railway Station	E. J. Smith	1 $3\frac{1}{2}$	12	12	do		132 91
Maxville and Railway Station	ID. A. McArthur	4	18	12	do		75 00
Maxville and Riceville	V. Leger	15	6	6	do	(to Sept.30, 1888)	156 50
do do	W. H. Metcalfe.	$17\frac{1}{2}$	6	$\begin{vmatrix} 6 \\ 12 \end{vmatrix}$	do	from do	223 50
Maynooth and Ormsley Meadowyale and Railway Station	C W Switzer	31	$\frac{6}{12}$	12	do do		$1,100 00 \\ 118 56$
Meadowvale and Railway Station Meaford and Owen Sound	J. F. Leavens	208	6	12	do		150 00
Meaford and Railway Station	M. Paul	$\frac{1}{2}$		12	do		100 00
Meaford and Walter's Falls Mecunoma and South River	J. Campbell		$\frac{2}{2}$	$\begin{vmatrix} 12 \\ 12 \end{vmatrix}$	do		$200 00 \\ 288 00$
Mecunoma and Wattenwyl		15	$\frac{2}{2}$	12	do		40 00
Melancthon and Railway Station		4	6	12	do		68 64
Melbourne and Middlemiss	J. Greaves	4	6	12	do		129 75
Melissa and Catching Post	H. Magon	41574	$\begin{array}{c c} 12 \\ 12 \end{array}$	$\frac{12}{12}$	do		$ \begin{array}{cccc} 50 & 00 \\ 24 & 00 \end{array} $
Melville Cross and Railway Station.	H. Scott	7	6	12	do		30 00
Merivale and Ottawa	J. A. Hopper	8	3	12	do		120 00
Merrickville and Railway Station	M. Fitzgerald	$\frac{1}{2}$	12	10	do	18 days (from	74.00
Merritt and Varney	J G Wilson	5	2	12	do	May 14, '88)	$74 96 \\ 75 00$
Midland and Penetanguishene Stn.	J. Smith	5	6	12	do		119 48
Midland and Railway Station	T.B.J.Gladstone	$\frac{1}{2}$	24	12	do		1.20 00
Mildmay and Railway Station	G. Herringer	104	12	12	do	• • • • • • • • • • • • • • • • • • • •	90 00
Milford and Picton	J. J. Vandusen	$10 \ 10\frac{1}{2}$	$\frac{6}{2}$	$\frac{12}{12}$	do		$140 00 \\ 75 00$
Millbank Station and Morningdale	o. o. vundasen.	102	_	1.0	ao	**************	10 00
Mills	W. Strachan	5	12	9	do	(to Dec. 31, '88).	206 25
Millipridge and Dailyner Station	J. R. Ferguson.	5	12	3		from do .	68 75
Millbridge and Railway Station Millbrook and Street Letter Box	W Williams	14/8		$\begin{vmatrix} 12 \\ 12 \end{vmatrix}$	do		$ \begin{array}{r} 100 & 00 \\ 50 & 00 \end{array} $
Millbrook and Mount Pleasant	J. McLean	84		12	do		263 00
Millbrook and Railway Station	W. Vance	34	30	12	do		280 80
Mille Roches Station and Moulinette Millington and Uptergrove Station	S. Forsyth	$\frac{1}{3\frac{1}{3}}$		$\begin{vmatrix} 12 \\ 12 \end{vmatrix}$	do		$\begin{array}{ccc} 120 & 00 \\ 74 & 00 \end{array}$
Milton and Railway Station			$^{3}_{12\&18}$		do do		130 00
Milverton and Railway Station	W. H. Dorland.	2 4	12	12	do		124 80
Milverton Ry. Station and Topping	E. Taylor	6	6	12	do		225 00
Mimosa and Orton		$\frac{4\frac{1}{2}}{27}$		$\frac{12}{12}$	do		72 00
Mindemoya and Tehkummah Minesing and Railway Station		$\begin{bmatrix} 27 \\ 2 \end{bmatrix}$	$\frac{1}{6}$	12	do do		$149 00 \\ 84 24$
Minesing and Russellton	J, Campbell	6	3	12	do		120 00
Mitchell and Railway Station	W. W. Hicks	34		12	do		149 76
Mitchell and Russeldale	J. Cole	8	6	12	do		175 00

Name of Route,	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	Period.	Amount.
Mortimer's Point and Port Carling. Mossborough and Railway Station. Motherwell and St. Mary's. Mountain and Van Camp Mountain Grove and Ry. Station. Mount Albert and Railway Station. Mount Albert and Railway Station. Mount Forest and Railway Station. Mount Horeb and Reaboro. Mount Sherwood and Ottawa. Mull and Railway Station. Muncey and Railway Station. Murilla Station and Ry. Station. Murilla Station and Ry. Station. Murilla Station and Ry. Station. Murray and Railway Station. Muray and Railway Station. Muray and Stration and Railton. Muskoka Mills and Penetanguishene Mussellburg and Poole. Myrtle and Railway Station. Nantye and Catching Post. Napanee and Street Letter Boxes. Napanee and Street Letter Boxes. Napanee and Strathroy. do do Nepigon and Railway Station. Newboro and Smith's Falls. Newbury and Wardsville.	W. H. Dean R. Lang D. McIntosh J. Thompson T. Sanderson J. N. Sharpe J. J. N. Sharpe J. Judge A. Welstead J. Morrison R. Kirkby T. D. Stark T. Dorey J. Cochrane R. S. Walters W. J. Murphy L. Bellinger J. S. Ross W. Mortimer J. I. Hobson J. Pettapiece R. Shaver A. McDonald J. Roseman H. H. Davis J. H. Coyne W. Elliott A. Ardley N. Watson A. McGregor J. McLean McKenzie Bros C. N. Sherriff J. O'Reilly J. Landrigan W. Burgmann W. R. Derby S. Spillett G. Bogart P. E. R. Miller J. D. Naphan J. Shanahan J. Wrinkle N. Flanagan L. P. Siegmann L. P. Siegmann J. W Preston J. Wilson	15rods 1 24 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2 3 3 3 1 1 6 6 6 6 6 3 12 12 2 6 6 6 6 6 12 12 3 6 6 6 12 12 3 6 6 12 12 6 6 12 6 & 12 6 6 6 6	12 do	398 00 242 00 50 00 50 00 50 00 112 50 15 00 60 00 150 00 72 80 20 00 74 00 96 00 168 64 100 00 275 00 35 00 112 49 66 66 106 08 120 00 208 00 30 00 60 00 40 00 40 00 56 25 90 00 49 12 260 25 87 50 19 25 100 00 573 00
New Dublin and Railway Station. do do do New Edinburgh, Ottawa and Street Letter Boxes. New Flos and Phelpston. Newholm and Port Sydney. New Lowell and Railway Station. Newmarket and Pine Orchard. Newmarket and Railway Station. Newmarket and Railway Station. Newmarket and Railway Station. New Sarum and Railway Station. Niagara and Niagara Falls. Niagara and Railway Station. do do Niagara and St. Catharines.	J. W. Proctor. D. Gallagher. D. Ferguson. R. Paton. C. Ganton. J. Bogart. C. Newburn. G. W. Cloes. W. J. Sheppard. R. Warren. do	7 6 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	18 18 3 1 12 3 24 6 12 6 12 12 12	3 do (to June 30, '88) 9 do from do 12 do 2 do (from Feb. 1, '89). 12 do 13 do 14 do 15 do 16 do 17 do 18 do 19 do 19 do 10 do 11 do 12 do 12 do 12 do 13 do 14 do 15 do 16 do 17 do 18 do 18 do 19 d	48 75 160 00 23 33 35 00 24 00 100 00 119 00 892 00 156 00 525 00 60 00 20 00

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
						\$ ets.
Niagara Falls and Railway Station do do do	W. W. Woodruff	 	12 6	12 mor Season	ths	52 00 8 67
Niagara Falls and Suspension Bridge U. S	do	1	6	12 mon	ths	84 00
Nipissing and Powassan Station	J. Steele	$12^{\frac{1}{2}}$	3	3 do	(to June 30, '88.)	57 50
do Nipissing Junction and Ry. Stations	H. A. Steele	12	6 & 12	9 do	from do	$172 50 \\ 124 96$
Nithburg and Stratford	\mathbf{H} , \mathbf{Kumpf}	16	6	12 do		400 00
Nixon and Railway Station Nober and Railway Station	J. Bannister		$\begin{array}{c c} 12 \\ 12 \end{array}$			56 26 25 00
Normandale and Vittoria	S. Ottlev	4	3	12 do		68 00
North Augusta and Ry. Station	S. J. B. Whaley	45	$\begin{bmatrix} 6 \\ 3 & 12 \end{bmatrix}$	12 do		$\begin{array}{cccc} 200 & 00 \\ 110 & 00 \end{array}$
North Bay and Railway Stations North Bruce and Queen Hill	D. McKinnon	$2\frac{3}{4}$	3	12 do		80 00
North Buxton and Railway Station Northcote and Renfrew	G. B. Shreve	14	$\frac{12}{2}$	12 do 12 do		$\frac{40\ 00}{130\ 00}$
North Gower and Railway Station.	A. Haggins	83	6	12 do		198 00
North Keppel and Owen Sound North Valley and Osnabruck Centre		21	3 3	12 do 12 do		340 00 60 00
North Williamsburg and Strader's						
Hill Norval and Railway Station	W. C. Strader	$\frac{5}{1\frac{1}{2}}$	$\frac{1}{6}$	12 do 10 do	(from June 1, '88).	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Norwich and Railway Station	J. Lawrason	3	24	12 do		85 00
Norwood and Midland Ry. Station	E. Gould	$\frac{6}{\frac{1}{2}}$	$\frac{12}{20}$	3 do 12 do	(to June 30, '88).	50 00 156 30
	H. Gerow	15^2	1	12 do		80 00
Norwood, Warkworth and Midland Railway Station		1686	6	9 do	(from July 1, '88)	375 00
Nosbonsing and Railway Station	M. Cahill	1	6	12 do		80 00
Nottawa and Pretty River Valley Nottawa and Railway Station	M. Gillies	$\frac{6}{3}$	$\frac{2}{12}$	12 do 12 do		60 00 88 00
Novar and Railway Station	R. W. Nicholls.	3444	6&12	12 do		45 24
Novar and SwindonOakland and Windham Centre, &c.		13	6 & 12	12 do 12 do	*************	$ \begin{array}{cccc} 52 & 00 \\ 420 & 00 \end{array} $
Oak Leaf and Soperton	C. W. Murphy	$2\frac{13}{2}$	2	12 do		50 00
Oakville and TrafalgarOakwood and Railway Station	E. Hillmer	4	6	12 do		225 00
	lin	$1\frac{1}{2}$	12	12 do		93 60
Odessa and Railway Station Odessa and Violet	A. A. Babcock	5 6	$\frac{12}{6}$	12 do 12 do		$250 00 \\ 116 00$
Ohsweken and Tuscarora	J. Porter	31/2	3	12 do		100 00
Oil City and Railway Station	J. Ferguson	$\frac{1}{16}$	$\frac{12}{2}$	7 do 12 do		54 30 100 00
Oil City and Wheeler. Oil City, Oil Springs and Ry. Station	J. W. Cates	$2\frac{5}{4}$	12	5 do	(to Aug. 31, 88)	112 50
Oil Springs and Railway Station	l do	1900 37 8	$\frac{12}{3}$	7 do 12 do	from do	54 30 140 00
Oldcastle and Railway Station Olinda and Ruthven	J. Hill	$2\frac{1}{2}$	6	12 do		60 00
Oliver and ThorndaleOliver's Ferry and Railway Station.	J. G. McLeod	$\frac{6}{5\frac{1}{2}}$	$\frac{2}{6}$	12 do 12 do		$100 00 \\ 240 00$
Olivet and Rothsay Omemee and Railway Station	J. Tremain	$\frac{3}{4}^2$	2	12 do		60 00
Omemee and Railway Station Ompah Station and Railway Station	R. Grandy	$\frac{1\frac{1}{2}}{20 \text{ yds}}$		12 do 12 do		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Uneida and Railway Station	J. A. Munny	1 14	6	12 do		125 00
Onondago and Railway Station	L. Buckwell	1 1	$\frac{6}{42}$	12 do 12 do		109 20 $229 31$
Orangeville and Railway Station Orangeville and Vanatter	W. J. Glover	5^4	2	12 do		88 00
Oranmore and Spence Orillia and Grand Trunk Ry.Station	H. Nelson			12 do 12 do		75 00 97 77
Orillia and Northern Ry. Station.	A. Fraser	1 1	24	12 de		123 30
Orillia and Sebright	A. Dunn	16° $12\frac{3}{4}$	6 6	12 do 12 do		330 00 280 00
Orleans and Ottawa. Ormsby and Railway Station	G. Jarman	16		12 do		50 00
Ormsby and Thanetdo do do	W. McKillican	5 5	2 2	9 do 3 do	(to Dec. 31, '88)	60 00 17 50
Oro Station and Railway Station	A. Douglas			12 do		55 00

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		ii	No. of Trips per Week.			
	Name	Distance Miles.	Z-V			
Name of Route.	of	tar	g J		Period.	Amount.
	Contractor.	ist Mi	lo.			
		Α				
						\$ ets
Orton and Railway Station	W. Mooney	1	12	12 mor	nths	50 00
Orwell and Railway Station	F. Sutherland.	J8-101-10	12	9 do		90 00
do do Osceola and StaffordOsgoode Station and Railway Station	W. J. Gegan	$\frac{1}{2}$	12	3 do	from do	29 25
Osceola and Stafford	D. Childerhose	8	3	12 do		140 00
Osgoode Station and Railway Station	J. Buckels	40 yds	6	12 do 12 do		$15 00 \\ 480 00$
Osgoode Station and Russell Osgoode Station and West Win-	I. Lievia	$21\frac{1}{2}$	0	12 do		400 00
chester	A. Campbell	22	6	12 do		625 00
Oshawa and Raglan		9	6	12 do		360 00
Oshawa and Street Letter Boxes	do	9	12	9 do		48 75
Ossian and Sarnia	F. B. Rudd	$15\frac{1}{2}$	$\frac{3}{2}$	12 do 12 do		344 00
Oso Station and ZealandOttawa and Post Office Department	W. Armstrong	$3\frac{1}{2}$	18	12 do		$45 00 \\ 551 20$
Ottawa and C. A. and C. P. Railway		8	10	12 do		551 20
Stations	B. D'Arpentigny	1	18	12 do		756 60
Ottawa and Railway Station Ottawa and Exhibition Grounds	P. McKenna	1	As req			3,100 32
Ottawa and Exhibition Grounds	W. Goodwin				l trips	13 50
Ottawa and RichmondOtterville and Railway Station	H. Kielly	20			nths	$725 00 \\ 96 28$
Oungah and Wallaceburg	D McLean	$11^{\frac{1}{2}}$	6	12 do		300 00
Overton and Roblin	W. M. Paul	31	$\tilde{2}$	12 do		60 00
Owen Sound and Railway Station	W. M. Matthew	1	24	6 do		125 00
do do	W. Bridgett	1	24	6 do		100 00
Owen Soundand Street Letter Boxes		901	18	12 do		$\begin{vmatrix} 235 & 00 \\ 548 & 00 \end{vmatrix}$
Owen Sound and TaraOxenden and Wiarton	J. Crandon	$\begin{vmatrix} 20\frac{1}{2} \\ 3 \end{vmatrix}$	6	12 do		$\frac{548}{120} \frac{00}{00}$
Oxford Station and Railway Station	G. L. Cook	1 1	3	12 do		32 00
Paisley and Railway Station	S. Cruickshank	1 2	24	12 do		131 40
Paisley and Vesta. Pakenham and Panmure	do	$16\frac{1}{2}$		12 do		390 00
Pakenham and Pailmar Station	G. McClinton	20	6 18	12 do		$\begin{array}{c} 279 & 00 \\ 171 & 60 \end{array}$
Pakenham and Railway Station	W Mahon	84	10	$\begin{array}{c c} 12 & do \\ 12 & do \end{array}$		50 00
Palmer Rapids and Rockingham Palmer Rapids and Wingle Palmerston and Railway Station Paris and Railway Station	J. Wingle	6	1	12 do		
Palmerston and Railway Station	T. W. Johnston.	18	36	12 do		170 00
Paris and Railway Station	C. L. Newell	1	30	9 do		253 53
do do	H. Oliver	1	36	3 do		$92\ 40$ $72\ 00$
Paris and Street Letter Boxes Parkdale and Railway Station	W. Grav	1 8	$\begin{array}{c c} 12 \\ 24 \end{array}$	9 do		90 00
Parkdale—G. T. Ry. and C. P. Ry.	do	16		12 do		50 00
Parkersville and Mail Catching Post	T. H. Osborne			1 do		2 08
Park Head and Railway Station	F. Pattison	1 2	6&12	12 do		54 58
Parkhill and Railway Station do do	G. Mathers G. Simpson	21 21 21 8	$\begin{array}{c c} 12 \\ 12 \end{array}$	6 do		42 50 42 50
Parkhill and Strathrov	W Fletcher	18	3	12 do		350 00
Parry Sound and Rosseau	T. W. Quinn	25	6	12 do		490 00
Parry Sound and Rosseau	W. R. Hamilton	$14\frac{1}{2}$	1	12 do		. 80 00
Patillo and Kallway Station	D. Coutts	1 +	6	12 do		25 00
Pearceley and Sundridge	T. G. Pearce	8 11	$\begin{array}{c c} 1 \\ 1 \end{array}$	12 do 12 do		$\begin{array}{c} 65 & 00 \\ 100 & 00 \end{array}$
Pelee Island and Pelee Island East. Pembroke and Railway Station		11		12 do		398 00
Pendleton and Railway Station	H. Roy.	17	6	12 do		500 00
Penetanguishene and Ry. Station	C. Charlebois	1	12	12 do		59 00
Peninsula Harbor and Ry. Station.		$1\frac{1}{3}$	6	6 do		60 00
do do Penville and Tottenham	do	10 - 1	$\frac{6}{6}$		from do .	37 50 199 00
Perch Station and Railway Station.	T. Irwin		2	$\begin{vmatrix} 12 & \mathrm{do} \\ 12 & \mathrm{do} \end{vmatrix}$		50 00
Perm and Rosemont	J. J. Morrow	$7\frac{56}{2}$	6	12 do		285 00
Perth and Playfairdo do	W. G. Cameron.	14	6	3 do	(to June 30, '88).	90 15
do do	G. C. Mills	14	6	9 do	from do	300 00
Perth and Railway Station	J. Allan	$9\frac{1}{2}$	29	$\begin{vmatrix} 12 & do \\ 12 & do \end{vmatrix}$		$\begin{array}{c} 271 & 80 \\ 185 & 00 \end{array}$
Perth and Tennyson	W. Devlin	$10^{9\frac{1}{2}}$	1	$\begin{vmatrix} 12 & do \\ 12 & do \end{vmatrix}$		84 00
Perth and Stanleyville Perth and Tennyson Perth and Westport	A. P. Palmer	23	2	12 do		175 00
Petawawa and Railway Station	S. Devine	11	3	12 do		80 00
Peterboro' and Railway Station				12 do	(less fine)	586 62

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
						\$ ets.
D . 1 1 10 17 11 D	II C D		10		17 /C T 1 1 100)	
Peterboro' and Street Letter Boxes. Peterboro' and Warsaw		16	$\begin{vmatrix} 12 \\ 6 \end{vmatrix}$		ths(from July1, '88) (to Sept. 30, '88)	150 00 138 00
do do	D. McIntosh	16	6		from do .	138 00
Petersville and Roseville	F. Kranel	12	6 & 3	12 do		398 00
Petersburg and St. Agatha	J. Raiser	2,	6	12 do		125 00
Petrolea and Railway Station Petrolea and Willson Croft	J. L. Wilson	41	$\frac{24}{2}$	12 do 12 do		100 00 75 00
Phelpston and Railway Station	D. Gallagher	16	6	12 do		46 80
Phelpston and Vigo	do	5	3	12 do		100 00
Picton and Ry. Station	liams	3	18	12 do		204 00
Picton and Solmesville	H. Goodwin	174	6	12 do		349 00
Picton and Street Letter Boxes	T. Shannon (to		12	9 do	(from July 1, '88).	58 50
Picton and West Lake	pay)	0	2 & 3	12 do		94 48
Pike Creek and Tecumseh	G. Bedell	8 2	3	12 do		60 00
Pinedale and Wick	C. Ferguson	4	2	12 do		65 00
Pine Grove and Woodbrigde	F. Earls	. 14	6	12 do	(4. 67 4. 90. 200)	42 00
Pinkerton and Ry. Stationdo	J. Connor	$\frac{2}{2}$	6	6 do	(to Sept. 30, '88) from do	60 00 47 50
Point Alexander and Ry. Station	J. Mireau	$\frac{1}{6}$	3	12 do		100 00
Pointe aux Pins and Sault Ste. Marie	H. Wood	9	1	12 do		55 00
Point Edward and Sarnia	F. Symington	2 5	$\frac{6}{2}$	12 do 12 do		156 00
Pomona and Priceville	J. Gilmore	3	3	12 do 12 do		70 00 75 00
Pontypool and Ry, Station	T. H. Williamson	1 16	12	9 do	(to Dec. 31, '88)	60 00
do do	T. Stanton	$13^{\frac{1}{16}}$	12	3 do	from do	17 50
Poplar Grove and Rydal Bank Portage du Fort and Ross	W. R. Smyth	13		12 do 12 do		104 00
Port Arthur and Ry. Station	F. S. Wiley	3 4		12 do		$\begin{array}{ccc} 70 & 00 \\ 250 & 00 \end{array}$
Port Arthur and Silver Mountain	G. Levins	404	1	11 do	(to Feb. 28, '89)	320 83
Port Burwell and Port Rowan	H. A. Aker	18	6	12 do		475 00
Port Carling and Falkenburg Station	C. McCulley	15	3	4 do	(from Dec.1, '88)	96 00
Port Cockburn and Trout Lake	H. Fraser	4	2	Season	1888-89	25 00
Port Colborne and Rv. Station	W. Lewis	4	24 & 12		ths	148 96
Port Coldwell and Ry. Station Port Credit and Ry. Station	R. Jackson	50 ft.	12 6	3 do	(from Jan. 1, '89).	$\begin{array}{c} 2 & 50 \\ 46 & 80 \end{array}$
Port Dalhousie and Ry. Station	F. W. Smith	8	24 & 30	12 do		194 38
Port Dover and Ry. Station	B. Evans	1 & 1	6 & 12	12 do		101 00
Port Dover and Victor	W. R. Reid	$4\frac{1}{2}$	3	12 do		75 00
Port Elgin and Ry. Station Port Elgin and Tara	J. Bowes T. Johnston	16	18&24 6	12 do		$109 58 \\ 372 00$
Port Finlay and Richard's Landing.	M. McLennan	2			1888	40 50
Port Franks and Thedford	A. Kimmerley	6			hs (to June 30, '88).	31 25
	G. Kipp	$\frac{6}{3}$	36		from do	86 25 200 00
Port Hope and Ry. Station Port Hope and Street Letter Boxes.	J. Caldwell	$4\frac{3}{4}$		12 do		200 00
Port Lambton and Ry. Station	W.H. McDonald	1 8		12 do		50 00
Port Maitland and Stromness	H. Siddall	$2^{\frac{1}{8}}$	3			70 00
Port Perry and Ry. Station Port Perry and Scugog	J. Burke	74	18 2	12 do 12 do		$\begin{array}{ccc} 74 & 00 \\ 100 & 00 \end{array}$
Port Perry and Shirley	T. Espin	5	$\frac{1}{2}$	12 do		80 00
Fort Ferry and Uxbridge	J. Twony	12		12 do		380 00
Port Perry and Whitby Port Robinson and Ry. Station	L. Sebert		24		trips	$10 00 \\ 112 50$
do do	J. McCoppen	4	$\frac{24}{24}$		hs (to Dec. 31, '88). from do	35 00
Port Rowan and Simcoe	L.W. Fick	21^4	6	12 do		390 00
Port Ryerse and Simcoe	P. McCoy	6			(less fine)	138 00
Port Severn and Waubashene Port Stanley and Ry. Station		$\frac{5}{1}$		12 do 12 do		156 00 160 00
Port Sydney and Utterson	H. G. Ladell	$2\frac{8}{2}$	6	12 do		156 48
Powassan Station and Ry. Station.	J. G. Duncan	, 1		12 do		46 80
Prescott and Ogdensburg, U.S Prescott and Ry. Station	C. Plumb	$2 \frac{1}{1}$		12 do 12 do		578 24 140 40
rescon and my. Station	L. Lesne	2	10	12 00		140 40

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	Period.	Amount.
					\$ ets.
Prescott and Street Letter Boxes			18	9 months (from July 1, '88)	108 00
Prescott and Throoptown	w. J. Reynolds.	16	2	3 do (to June 30, '88)	33 25
do do	P. Bulger.	16	2	9 do from do	74 60
Preston and Strasburg Preston and Waterloo	C. Kress	8	$\frac{6}{12}$	12 do 12 do	330 00 600 00
Primrose and Whitfield	P. D. Henry	$4\frac{1}{2}$	6	12 do	156 00
Prince Albert and Railway Station.		458	$\frac{12}{6}$	12 do	
Proton Station and Railway Station. Proton Station and Wareham	J. M. Burk	7	3	12 do	
Purbrook and Uffington	J. Crockford	6	2	12 do	50 00
Purple Grove and Ripley Puslinch and Railway Station	J. N. Logan	5,	$\frac{1}{12}$	12 do	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
1 usimen and Itanway Station	II. Liesiic	8	12	12 00	35 00
Quinn and Tilbury Centredo do do		5 5	3 3	9 do (to Dec. 31, '88) 3 do from do	84 36 37 50
Ratho and Railway Station		1/8	6	12 do	52 00
Ravenshoe and Baldwin's Crossing. Ravenshoe and Railway Station		4	6	Special trips	
do do	W. D. Smith	4	6	9 do from do	112 50
Reaboro and Railway Station	G. Laing	1	12	12 do	70 00
Read and Shannonville	P. McKenny	10	6 3	12 do	225 00 97 50
Red Rock and Railway Station	N Flanagan			9 do (to Dec. 31, '88)	58 75
Renfrew and C. P. Ry. Station do do	J. Smith	4	$\begin{array}{c c} 24 \\ 24 \end{array}$	3 do (to June 30, '88)	56 16 234 00
Renfrew and K. & P. Ry. Station	J. Smith	1014-14-14-14-10014	12	9 do from do 6 do (to Sept. 30, '88)	
do do	J. Rousselle	4	12	6 do from do	31 30
Renton and Railway Station	W. Renton	13	12	12 do	78 00 52 00
Renton and Tyrrell	W. Young	6		12 do	
Richmond Hill and Rv. Station	W. R. Proctor	34		12 do	237 12
Richmond Hill and Toronto Richmond West and Stapledon	J. Palmer T. H. Stapledon.	$\frac{16}{3\frac{1}{2}}$	6 3	12 do	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Richwood and Railway Station Ridgemount and Stevensville	W. Taylor	1/2	6	12 do	78 00
Ridgemount and Stevensville	J. Dennahowe	3 3 4	18 18	3 do (to June 30, '88) 12 do	19 50 149 76
Ridgetown and Railway Station Ridgeway and Railway Station	P. W. Anthony.	1	12	12 do	74 88
Ridgeway and Railway Station Ridgeway and Stone Quarry	A. House	3½ 3½	2	3 do (to June 30, '88)	15 00
Ridgeway and Welland	D. McInnes	19		12 do	248 00 84 00
Ripley and Verdun	S. Irwin	$5\frac{1}{2}$	2	6 do (to Sept. 30, '88)	
Riverside and Toronto	H. Parry	$\frac{1\frac{1}{2}}{3\frac{3}{4}}$	6	112 do	125 00
do do do	H. Jordan	$\frac{34}{384}$	2	3 do (to June 30, '88) 9 do from do	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Roblin and West Plain	A. Sedore	3	2	12 do	20 00
Rob Roy and Singhampton	R. Shields	6	2 6	12 do	84 00 150 00
Rockland and Railway Station	A. Campbell	24	6	12 do	
Rockliffe and Railway Station	W. H. McIntyre	300 y's	12	12 do	32 00
Rockside and Salmonville Rodney and Railway Station	J. Harber	$3\frac{1}{2}$	18 18	12 do 12 do	69 00 93 60
Rosemont and Shelburne	G. Barber	12	6	12 do	520 00
Rosseau and Rosseau Falls	P. Mutchen-		9	D f 1007 00 9	
	backer	4	3	Part of seasons 1887-88 & 1888-89	22 00
Rosseau and Shannon Hall		$12\frac{1}{2}$	1	12 months	78 00
Rosseau and Utterson		22	6	Part of seasons 1887-88 &	100.00
Rossport and Railway Station	S. Cornell	50 vds	12	1888-89 6 do (to Sept 30, '88)	$ \begin{array}{r} 180 \ 83 \\ 7 \ 50 \end{array} $
do do	P. A. Leitch	50 yds	12	6 do from do	7 50
Rouge Hill and Toronto Round Plains and Waterford	B. H. Rammage	17	6 3	12 do	399 00 95 00
Rowan Mills & Walsingham Centre.		7	3	12 do	114 00
	40)			

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
						\$ cts.
D Chat's I Do Chat's	T D M-+h	FO - 1	10	110	41	
Russell and South Indian Railway	J. D. Matners	ou yas	12	12 mon	ths	10 00
Station.	R. Young	10	6	12 do		225 00
St. Catharines and Street Letter						
Boxes	P. Shiels		Asreq	6 de	(to Dec. 31, '88)	156 50
do do	J. J. Richardson		do	3 de	from do	78 25
St. Catharines and Welland Station St. Eugène and Vankleek Hill	M. Ireson	10	24	12 do)	230 80 290 00
St. George and Railway Station	M. Brockbank	1		12 de		160 94
St. Josephim, River Ruscom, and						
Railway Station St. Lawrence and Wolfe Island	J. Bacon	$\frac{3}{12}$	$\begin{vmatrix} 6 \\ 1 \end{vmatrix}$	12 do		135 00
St. Ola and Railway Station	P. P. Clark	2	6	$\begin{array}{ccc} 12 & \mathrm{d} \mathrm{d} \\ 12 & \mathrm{d} \mathrm{d} \end{array}$		75 00 50 00
St. Patrick and Railway Station	B. Payement	2	3	6 de	(to Sept. 30, '88)	24 00
St. Patrick and Changing Post	J. Langdon	12	3	6 do		19 00
St. Paul's Station and Ry. Station St. Thomas and Railway Stations	A. I nom A. Boughner.	$\frac{1}{16}$	$\begin{array}{c c} 12 \\ 72 \end{array}$	12 do		62 40 539 88
St. Thomas and SpartaSt. Thomas and Street Letter Boxes	W. Gregory	11	$\tilde{6}$	12 de		185 00
St. Thomas and Street Letter Boxes	F. E. Ermatin-		10		(6.1 T. 3 # 100)	
St. Thomas and Talbotville Royal	ger (to pay)	$3\frac{1}{2}$	$\frac{12}{6}$	9 de 12 de		$127 67 \\ 120 00$
Sadowa and Sebright	J. H. Vanvlack.	53				31 20
Sand Point and Railway Station	E. De Renzy	16	24			156 00
Sandwich and Windsor	A. G. Kennedy	$\frac{2}{2}$	6		(to Dec. 31, '88)	130 50
do do Sarnia and Port Huron, U.S	J. P. Dawson	$\frac{2}{2}$	12			45 00 150 00
Sarnia and Railway Station	J. J. Koss	100 vd	12			93 60
Sarnia and Street Letter Boxes	G. Burton	1	12	6 de		62 50
do do Sauble Falls and Wiarton	H. Crandon	12	12	3 de 12 de		28 50 119 00
Saugeen and Railway Station	T. Lee	12	18 & 24	112 de		137 64
Sault Ste. Marie and Ry. Station	M. C. Pim	l l	6	4 de	o 16 days (from	
Sault Ste. Marie and Sault Marie, U.S.		11	6	Soggon	Nov. 15, '88). 1888	35 10 131 42
	W. Turner	13			seasons 1887-88 &	131 42
0 1 0 10 10 1	TIT TI TI			1888-	89	165 91
Sault Ste. Marie and Thessalon	W. H. Plummer.	60	$\frac{1}{12}$		season 1887-88	$\begin{array}{cccc} 72 & 00 \\ 20 & 00 \end{array}$
Saurin and Railway Station Schreiber and Railway Station	D. R. Bruce	100 vd		12 moi		25 00
Scotch Block and Railway Station	J. McKenzie	1	6	12 d	o	78 00
Scotia and Catching Post	J. Bucke	4	$\frac{6}{12}$	12 de 12 de		62 40
Scouten and Railway Station Seaforth and Railway Station	S. Dickson	1	24	12 de		30 00 187 20
Seaforth, Varna and Rv. Station	D. Hav	128	6 & 12	2 3 de	o (toSept. 30, '88)	68 75
Seagrave and Railway Station Sebringville and Railway Station	E. Wanes	1	$\frac{6}{12}$			69 88
Seely and Wiman	M. Trueman	6	1 12	$\begin{vmatrix} 12 & d \\ 6 & d \end{vmatrix}$		$90\ 00\ 14\ 00$
do do	J. Fowler	6	1	1 d	o (to Oct. 31, '88)	2 33
Serpent River and Railway Station.	G. McDonald	1	6	2 d	o 16 days (to Jan.	
Severn Bridge and Railway Station.	J. H. Jackson	ي ا	24	12 d	31, '89)	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Shamrock and Sheedy	M. Sheedy	7	2	12 d		102 67
Shamrock and Whelan	S. Whelan		2	12 d		50 00
Sharty Bay and Railway Station. Sharbot Lake and Railway Station.	J. Granam M. Avery	2	12 14	12 d		$\begin{array}{c c} 60 & 00 \\ 148 & 40 \end{array}$
Shelburne and Railway Station	E. Berwick		24	12 d		124 80
Sherkston and Railway Station	B. F. Sherk		$\frac{1}{2}$ 6	12 d	0	50 00
Shetland and Sutherland's Corners. Shrubmount and Vivian	F. Stevens	$\begin{bmatrix} & 5 \\ 2 \end{bmatrix}$	3 3	12 d 12 d		$\frac{90\ 00}{65\ 00}$
Siloam and Uxbridge	J. Smith	. 16 r. t	3			146 00
Simcoe and Railway Stations	H. Hall	. 1 &	12	3 d	o (toJune 30, '88)	55 34
Skye and Railway Station	H. W. Pursel	. 1 & :	12	9 d 12 d		
Smith's Falls and Railway Station.	H. Carley		$\frac{1}{2}$ 24			$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	4					

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
Smith's Falls and Railway Station Smithdale and Railway Station Smithville and Wellandport Snake River and Railway Station Snake River and Railway Station	C. Smith J. Wilson	9 31	12 6 3	10 mod 12 do 12 do 12 do 12 do		\$ 'ets, 88 19 30 00 269 00 96 24 125 00
Sombra and Marine City, U.S Sombra and Railway Station Sombra and Thornyhurst Sombra and Wilkesport Sonya and Railway Station	J. McCallum P. Cattanach do H. G. Waybrant N. Cornwall A. Black	$\begin{bmatrix} 6\frac{1}{2} \\ 2 \\ 6 \end{bmatrix}$	3 3 12 2 6	9 do	(to Dec. 31, '88) from do	111 75 36 00 36 00 50 00 60 00 185 00 40 00
	J. St. Denis J. K. Meredith P. Orchard W. Holditch P. J. Loughrin	$15\frac{1}{2}$	$ \begin{array}{c} 12 \\ 6 \\ 6 & 12 \end{array} $	12 do		25 00 50 00 400 00 87 00 99 44
Spencerville and Railway Station do do do Springfield and Railway Station Sprinford and Railway Station Springville and Railway Station do do Spry and Stokes Bay	W. H. Spencer A. Carmichael J. Dennis T. McMehan M. Halloran	$1\frac{1}{2}$ $1\frac{1}{4}$ 3 3	$egin{smallmatrix} 6 \\ 6 \\ 12 \\ 6 \& 12 \\ 6 \\ 6 \end{bmatrix}$	9 do 3 do	(to Dec. 31, '88) from do (to Dec. 31, '88) from do	18 75 56 25 18 75 88 00 200 00 97 50 34 50 130 00
Stanleydale and Yearleys. Stayner and Railway Station do do Stayner and Sunnidale Stayner and Vanvlack Stevensville and Railway Station.	W. B. Sanders J. Sherrick J. D. Laidlaw C. Tytherleigh	734 13	$\begin{array}{c} 3 \\ 24 \\ 24 \\ 3 \\ 1 \\ 12 \end{array}$	12 do 9 do 12 do 12 do 12 do	(to Dec. 31, '88, less fine)from do	39 00 71 50 24 00 159 96 74 00 80 00
Stewart Station and Railway Station Stirling and Railway Station Stittsville and Railway Station Stokes Bay and Tobermorey Stony Creek and Woodburn Stony Lake and Warsaw Stouffville and Railway Station	R. Jackson W. Gould. S. Mann M. Belrose J. Cowan H. Bell J. E. Addison	50 ft. 120 y's 26 15 r.t. 12	6 1 3 1 30	12 do 12 do 12 do 12 do 12 do 6 do	(to Dec. 31, '88) (less fine)	$\begin{array}{c} 0 83 \\ 57 40 \\ 21 84 \\ 224 00 \\ 116 48 \\ 75 00 \\ 50 00 \\ \end{array}$
do Strathallan and Woodstock Stratford and Railway Station Stratford and Street Letter Boxes. Strathroy and Street Letter Boxes. Streetsville and Railway Station Stromness and Railway Station.	M. Yake R. Langdon. A. Hirst. T. Stoney H. McColl J. Johnson, sr G. Latimer.	$\begin{array}{ c c }\hline 14^{\frac{1}{2}}\\ & \vdots\\ & \ddots\\ & \ddots\\ & \ddots\\ & 2^{\frac{3}{4}}\end{array}$	48 19 18	12 do 12 do 12 do 9 do 12 do 6 do	(from July 1, '88) (to Sept. 30, '88).	$125 00 \\ 62 60$
do Stroud and Railway Station Sturgeon Bay and Railway Station. Sturgeon Falls and Railway Station Sudbury and Railway Station. Sunderland and Railway Station Sundridge and Railway Station	H. Siddall R. G. McCraw J. Playfair J. Stillar S. Fournier N. Steffins J. Carter.	1 18141814994	$egin{array}{c} 12 \\ 12 \\ 12 \\ 12 \\ 24 \\ 6 \& 12 \\ \end{array}$	12 do 12 do 12 do 12 do 12 do 12 do 12 do		60 00 120 00 80 00 75 00 120 90 59 48 52 20
Sundridge and Vavasour Sutton West and Railway Station. Sutton West and Vachell. Sweaburg and Woodstock Sydenham and Wilmur Sylvan and Widder.	do H. McCully W. D. Waters W. Randall	14 r.t. 6 7 3	12 2 3 2 6	12 do 12 do 12 do 12 do 12 do 12 do		64 00 100 00 120 00 95 00 100 00 140 00
Talbotville Royal and Tempo Tara and Railway Station	J. Wait J. Hamilton	$\frac{3}{\frac{3}{4}}$		12 do 12 do		50 00 118 92

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
Tavistock and Railway Station	G. Matheson	1	12	12 mon	ths	\$ ets. 50 00
Teeswater and Railway Station The Brook and South Indian Rail-	W. Zinger	$\frac{1}{2}$	12	12 do		104 17
way Stationdo do	A. Lefebvre	10			15 days (to Nov. 15, 1888 15 days (from	118 33
Thedford and Railway Station		300vd.	6	12 do	Nov. 16, 1888).	75 00 50 00
The Grove and Railway Station Thessalon and Railway Station	T. A. Robinson.	3	$\frac{12}{6}$	12 do	15 days (from	50 00
Thessalon and Wharncliffe Thompsonville and Railway Station	J. T. Schmieten-	17	1		Nov. 16, 1888). (from June 1, '88)	70 20 75 00
Thornhill and Railway Station	W. T. Brown	$\frac{1\frac{1}{4}}{3}$	6	12 do		110 00 187 20
Thornhill and Toronto	R. Power	38	12	12 do		250 00 59 48 187 20
Thwaites and Railway Station Tilbury Centre and Railway Station Tilsonburg and Railway Station	D. W. Thwaites.	3	$\frac{1}{12}$	12 do 12 do		20 00 96 00
do do	Becker & Pierce.	$\begin{bmatrix} 2\\1\\1 \end{bmatrix}$	$\begin{array}{c c} 12 \\ 12 \\ 12 \end{array}$	12 do 9 do 3 do	(to Dec. 31, '88)	118 56 93 75
do do Tioga and Railway Station Toronto and Railway Station	G. Fitzsimmons. J. Hendry	1 1		12 do	from do	34 65 45 00
do do •	F. Middleton J. R. Hendry	1 1	& 48 24&30 26&48	6 do	from do from do (less	1,004 10 429 77
do do	A. J. Pratt			Special	fine)	469 38 0 50
Toronto and Street Letter Boxes do do Tottenham and Railway Station	R. Bond			Special	service	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Townsend Centre and Waterford Toyes Hill and Winchester Springs	D. Kitchen J. B. McQuigg	3	3			75 00 60 00
Trenton and Railway Station Trenton and Wooler	Bros	1 1		12 do 12 do		$\frac{312}{175} \frac{00}{00}$
Tuftsvilleand North Hastings Junc- tion	S. Tufts	1	3			20 00
Tupperville and Railway Station Turnerville and Railway Station Tuscarora and Railway Station	W. Turner.	1	6			24 96 25 00 109 20
Tuscarora and Railway Station Tweed and Railway Station Tweedside and Winona	A. Land	5	20 3	12 do 4 do	(to July 31, '88)	$\frac{156}{26} \frac{00}{00}$
Tyrconnell and Wallacetown Uffington and Vankoughnet		9	$\frac{6}{2}$	12 do 12 do		105 00
Uhthoff and Railway Station Underwood and Willow Creek	J. Lynes $J. Hyde$	$6\frac{1}{2}$	12 1	12 do 12 do		$ \begin{array}{ccc} 80 & 00 \\ 45 & 00 \end{array} $
Unionville and Railway Station do do	M. R. Hemming-		24		(to Sept. 30, '88).	43 68 40 56
Uphill and Victoria Road Uptergrove and Railway Station	T. Mulvihill	$\frac{12}{\frac{1}{2}}$	24	12 do 12 do	from do	160 00 180 00
Utopia and Railway Station Utterson and Railway Station Utterson and Winderman	P. Connor E. Hanes	$\begin{array}{c c} & \frac{1}{16} \\ \hline & 4 \\ 15 \end{array}$	$\begin{array}{c c} 12 \\ 12 \\ 2 \end{array}$	12 do 12 do 12 do		50 00 125 20 200 00
Utterson and Windermere Uttoxeter and Wanstead Uxbridge and Railway Station.	J. Kimmerly	1 5	$\begin{array}{c c} 3 \\ 24 \end{array}$	12 do 12 do		100 00 90 00
Uxbridge and Victoria Corners Vandecar and Woodstock			3	12 do 12 do		145 00
Vankleek Hill and Railway Station Varney and Railway Station	W. Lawlor	12	6	12 do		624 00 64 00

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
						\$ cts.
Vars and Railway Crossing	S T Cheney	1	12	4 mon	ths 19 days (from	To Cus.
		4	1		12, 1888)	11 57
Vasey and Waverlydo do do	J. Fraser J. Loney	4	3 3	9 mon 3 do	ths (to Dec. 31, '88) from do	75 00 22 25
Ventnor and Railway Station Verner and Railway Station	G. A. Henderson	$\frac{1}{5\frac{1}{2}}$	6	12 do		130 00
Verner and Railway Station Victoria Harbor and Ry. Station	J. L. Michaud	181	$\begin{array}{c c} 12 \\ 24 \end{array}$	12 do 12 do		20 00 115 00
Villa Nova and Railway Station	M. McAlpine	4	6	12 do		50 00
Villiers and Railway Station	W. Weir	2 1 16	$\frac{3}{12}$	12 do 12 do		74 88 56 00
Vine and Railway Station Victoria and Walsh.	S. Ottley	4	*3 & 6	12 do		115 50
Vivian and Railway Station	N. L. McCor- mack	18	12	12 do		60 00
	mack	8	(2	12 00	• • • • • • • • • • • • • • • • • • • •	00 00
Waldemar and Railway Station	D. Lonkins	1	12	12 do		64 00
Wahnapitae and Railway Station	D. McLaren	2 4	12	12 do		37 56
Wales and Railway Station Walkerton and Railway Station	J. W. Baker	$1\frac{1}{6}$	12 24	12 do 12 do		90 60 312 00
Walkerton and Wroxeter	T. Sage	22	6	12 do	,	483 00
Walker's and Railway Station	J. Greaves	$2^{\frac{1}{8}}$	$\begin{array}{c c} 12 \\ 12 \end{array}$	12 do 12 do		30 00 120 00
Walkerville and Windsor Wallaceburg and Railway Station	J. McDougall	1 2	24	12 do		75 00
Wallacetown and Railway Station	C. McGregor	$2\frac{1}{2}$	$\frac{12}{2}$	12 do 12 do	• • • • • • • • • • • • • • • • • • • •	
Waller and Harney's Crossing Walnut and Watford	P.E. Willoughby	$\frac{1\frac{1}{2}}{6}$	2	12 do		30 00 100 00
Warwick and Railway Station	J. Smith	8,	6	12 do	*	195 00
Washago and Railway Station Waterford and Railway Stations	H. Dochstader	18	24 12	12 do 12 do		156 00 93 88
Waterloo and Railway Stations	F. Sars	2,	30	12 do		
Waubashene and Railway Station	J. Scott T. French	$9^{\frac{1}{8}}$	24	12 do 12 do		$\begin{array}{cccc} 60 & 00 \\ 275 & 00 \end{array}$
Webbwood and Railway Station	J. McLandress	34	6	3 do	, ,	19 25
Weidman and Railway Station Weldon and Railway Station	J. E. Weldon	50 ft.	$\frac{12}{6}$	12 do 12 do		15 00 40 00
Welland and C. S. Railway Station.	J. McQueen	14	12	12 do	• • • • • • • • • • • • • • • •	99 84
Welland and Welland Ry. Station	A. W. McAlpine O. H. Garner	2434	24 24	9 do 3 do		89 30 43 12
Welland and Street Letter Boxes	G. H. Burgar (to	4				
Welland and Wellandport	L. Durham	15	18	12 do 12 do		80 00 395 00
Wellington and Railway Station	M. Pettit	· 2 ⁴	12	12 do		65 00
Wellman's Corners and Ry. Station Wemyss and Railway Station.		2	3 6	12 do 12 do		75 00 15 00
Wemyss and Railway Station Wendover and N. N. Mills Railway	T. D. M. L.					
Station	J. B. Malette J. Barrowelough	$\frac{3}{1\frac{1}{2}}$	$\frac{6}{6}$	12 do 12 do		170 00 93 60
West Toronto Junction and Railway	,				***************************************	
Station	J. Kirkwood	1 1	$\begin{array}{c c} 12 \\ 12 \end{array}$	12 do 4 do	18 days (to Sept.	75 00
·				30, 1	888)	28 64
do do Westport and Railway Station	A. Kendrick	$\frac{1}{20}$	12	6 do 5 do	from do (to Feb. 28, '89).	37 50 205 00
do do	J. H. Whelan	20	6	1 do	from do	41 00
Westwood and Railway Station Whitby and Railway Station	J. S. Comstock	1	10	12 do 12 do	(less fine)	$\begin{array}{c} 125 \ 00 \\ 102 \ 28 \end{array}$
Whitechurch and Railway Station	H.D. Henderson.	21314	12	12 do		80 00
Whitefish and Railway Station White River and Railway Station			1	4 do	(from Dec. 1, '88)	10 30
·	lin	1 8	12	12 do	'A	30 00
Wiarton and Railway Station Wilbur Station and Railway Station		34	12	12 do 12 do		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Wilton Grove and Railway Station.	P. Murray	1834	6	12 do		30 00
Windsor and Detroit, U.S Windsor and Railway Station	S. D. Huff	$\begin{array}{c c} \cdot & 2 \\ 1 & 1 \end{array}$	24 24	12 do 12 do	(less fine)	500 00 219 00
The state of the s	44					

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amour	nt.
Wingham and C.P. Railway Station do do Wingham and G. T. Ry. Station Wolverton and Railway Station Woodslee and Railway Station Woodslee and Railway Stations Woodstock and Railway Stations Woodstock and Railway Station Wroxeter and Railway Station Wroxeter and Railway Station Wyebridge and Wyevale Station Wyebridge and Railway Station Wylie and Railway Station Wyton Station and Railway Station Yarmouth Centre and Ry. Station. Zephyr and Railway Station Suspension Bridge Tolls	do D. Campbell S. Claus F. Earls J. P. Henry J. A. McKenzie. A. McCleneghan (to pay). H. Ferguson A. Paulin. N. McRae W. T. Stewart J. Lyons G. Scatcherd G. A. Parlee J. N. Dafoe. W. G. Swan,	1 & 3 1 1	6 12 24 12 24 12 12&24 12 12&24 12 12&24 12 6 6 6 6 6 6 6	19, 18 8 mon' July 12 mon' 12 do 12		399 199 114 72 156 320 172 159 120 100 159	65 93 68 00 00 30 50 00 00 00 00 00 00 00
		1			Total	\$273,547	10

WILLIAM WHITE,

Deputy Postmaster-General.

W. H. SMITHSON,
Accountant.

\$8,539 65

Total.

WILLIAM WHITE, Deputy Postmaster-General.

DETAIL of all payments for Mail Transportation in Ontario, made within the Year ended 30th June, 1889. CONVEYANCE OF MAILS BY STEAMBOATS AND SAILING VESSELS.

Amount.	\$ cts. 2,297 89 2,290 00 1,200 00 2,200 00 2,25 00 75 00 75 00 75 00 2,697 60
Period.	6 12 months (and extra service). 6 Season 1888. 6 Season 1888. 6 Season 1888. 6 Good of Good o
No. of Trips per Week.	6 & 1 6 & 1
Distance in Miles.	17 12 18 24 20 8 8 160 36 2,650 s. & 2,650 s. &
Name of Contractor.	Descento Navigation Co Thousand Islands Railway Co M. H. Folger do H. T. Lidwell G. Crandell J. Cozens. Niagara Navigation Co C. W. Gauthier C. F. Gildersleeve. mada the
Name of Ronte.	Ubeseronto and Picton. Ganamoque and Clayton, U.S. Kingston and Cape Vincent, U.S. Kingston and Thousand Island Park, U.S. Kingsville and Pelee Island. Lindsay and Sturgeon Point. Michipicoten Island and Sault Ste. Marie Niagara and Toronto. Outer Duck Island and Windsor. Port Hope and Charlotte, U.S. Sea rate upon parcels transmitted between Canada and the United Kingdom, not covered by the Allan contract.

N.B. For Special Mail Subsidies and Steamship Subventions, see page 9.

W. H. Smithson,
Accountant.

DETAIL of all payments for Mail Transportation in Ontario, made within the Year ended 30th June, 1889.

CONVEYANCE OF MAILS BY RAILWAYS.

Name of Railway.	Distance in Miles,	No. of Trips per Week.	Period.	Amount.
Bay of Quinte Railway and Navigation Co Canada Atlantic Railway (within Ontario). Canada Southern Railway Canadian Pacific Railway (within Ontario)*	4 79 347 1,856	$\begin{array}{c} 18 \\ 12 \\ 6 \& 12 \\ \end{array}$ With varying frequency over different sections of	12 do (to 31st March, 1889) 12 do (to 31st May, 1889)	S cts. 730 00 7,748 48 32,934 55
Central Ontario Railway Erie and Huron Railway Grand Trunk Railway (within Ontario)	104 67 2,445	the line 6 6 6 6 With varying frequency	12 do do 12 do 12 do do 12 do do 12 do do 12 do 13 do 14 do 15 do	125,514 88 5,472 48 4,243 20
4Kingston and Pembroke Railway Leamington and St. Clair Railway Napanee, Tamworth and Quebec Railway Thousand Islands Railway	104 15 28 2	the ne	122 do	259,065 74 7,189 73 138 00 3,889 96 730 00
			Total	\$447,657 02

* This does not include the service between St. Polycarpe and Smith's Falls, see Quebec.

W. H. Smithson,
Accountant.

WILLIAM WHITE, Deputy Postmaster-General. Detail of all payments for making and repairing Mail Bags, Mail Locks, &c., in Ontario, made within the year ended 30th June, 1889.

Tradesmen's Names.	Particulars of Disbursements.	Amount.
Tackaberry & Wigmore Tackaberry & Loughrey T. Thompson. E. H. Roberts G. Bailey. Tackaberry & Loughrey. G. Bailey. Postmaster, Sundridge T. Thompson G. Bailey.	Brass mail locks for do Mail bag locks and keys for do do do Repairing brass mail locks for do Mail bag labels for do Stencilling mail bags for Post Office Inspector, Kingston Repairing mail bags for do do do Mail bag labels and repairs for do Toronto Repairing brass mail locks for do do for Postmaster, Kingston do for Postmaster, Kingston	1,165 50 920 50 45 25 30 25 150 20 374 85 2 64 19 50 35 55 215 88 35 70 2 50 28 65 2 25 1,125 28

WILLIAM WHITE,

Deputy Postmaster-General.

W. H. SMITHSON,
Accountant.

PROVINCE OF QUEBEC.

DETAIL of all payments for Mail Transportation in Quebec, made within the Year ended 30th June, 1889.

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
						\$ ets.
Albertaford and Douling	A Tamion	9	9	0 0000	other (from Ann 1	40 00
Abbotsford and Pauline	A. Lasmer	3	3	o moi	1, (from Aug. 1, 88)	60 00
Abbotsford and Railway Station	D. Sharkey	1 3 1	12	12 de		75 00
Abercorn and Railway Station Acton Vale and Railway Station	E. R. Shepard	77	$\begin{array}{c c} 12 \\ 12 \end{array}$	12 do		40 00
Acton Vale and St. Théodore						100 00
d'Acton	A. Laplante	4	6	12 do	5 d's(toAug.5,'88)	48 69
d'Acton Adamsville and Brigham Adamsville and Railway Station Adderley and St. Pierre Baptiste Adstock and St. Ephrem de Tring Agnes and Nadeau's Crossing Agnes and Railway Station Agnes and Sto Civila da Whitten	do	3	12		26 dys. (from do .	52 17
Adderley and St. Pierre Baptiste	P. A. Drolet	3	3	12 do		45 00
Adstock and St. Ephrem de Tring.	P Roy	$\frac{9}{4\frac{1}{2}}$	1	12 do		39 72 25 00
Agnes and Railway Station.	J. S. Wilson	. 13	12	12 do		36 00
Agnes and Ste Ceche de Willton	A. Loublet	()	. 3	12 do		96 00 120 00
Agnes and St. Samuel de Gayhurst.	H. W. Albro	15 10	$\frac{2}{1}$		·	49 00
Agnes and Three Lakes	M. J. Burwort	6 & 4	3	12 de		96 00
Allan's Corners and Cairnside	J. Bryson	4	2	12 dc		52 00 40 00
Allar's Corners and Ry. Station Allard Settlement and Nouvelle	T. Keavs	$\frac{1}{3}$	$\begin{array}{c c} 6 \\ 1 \end{array}$			20 00
Allumette Island and Pembroke	J. J. McGuire	7	2	$ 12\rangle$ do		85 00
Allumette Island and Pembroke Amqui and Railway Station Ancienne Lorette and Champigny.	T. Ross	60 yds	12	12 do		48 00 35 00
Ancienne Lorette and Champigny. Ancienne Lorette and Ry. Station.	H. Robitaille	400 y's	6 12	7 do	(to Aug. 31, 1888)	33 33
Ancienne Lorette and Sub-Office	G. Dufresne	3	6	5 do	do	25 00
Anderson's Corners and Dewittville Ange Gardien and Railway Station.	J. Anderson	4	$\frac{2}{12}$	12 do		63 75 50 00
Angeline and St. Alphonse de		6	12	12 do		50 00
Granby	O. Boisvert	4	3			78 00
Angers and Railway Station	L. Moncion	1 1	$\frac{6}{1}$			60 00 27 50
Annesley and North Onslow Antoinette and Lost River	C. Boon	22				150 00
Antoinette and St. Jovite	do	77	$\begin{bmatrix} 2\\2\\3 \end{bmatrix}$			56 00 68 00
Armagh and St. RaphaëlArmstrong Ry. Station and Sorel	J. Léveillé	$\frac{15}{\frac{1}{3}}$	12	12 do 6 do	15 dys. (to Oct.	08 00
					15, 1888)	40 34
Arthabaskaville and Chester Arthabaskaville and Victoriaville	J. Coté	8	$\begin{vmatrix} 6 \\ 12 \end{vmatrix}$	12 do		156 00 90 00
Arthabaskaville, Victoriaville and		$\frac{2\frac{1}{2}}{}$		12 uc		.,,
Railway Station Arundel and Rockway Valley	T. Perreault	8 & 21	6&12	12 do		58 00
Arundel and Rockway Valley	C. Sinclair	5	12			30 00 50 00
Ascot Corner and Railway Station. Ascot Corner and Westbury Aston Station and Railway Station. Aston Station and St. Léonard	J. P. Woodrow.	42	3	12 do		50 00
Aston Station and Railway Station.	A. Ouellette	120 y's	6	12 do		20 00
d'Aston	N. Doucette	9	6	12 do		237 00
d'Aston Aston Station and St. Sylvère	J. Taillon	$5\frac{1}{2}$	3	6 de	(from Oct. 1, '88). (to Sept. 30, '88).	40 00
Atheistand and Powerscourt	P. C. McGinnis.	$\frac{2}{2}$	3	6 do	(to Sept. 30, '88). (from Dec. 1, 88).	24 50 16 66
Aubert Gallion and St. George.	A. Montgomery.	2	3	4 60	(Hom Dec. 1, 60).	10 00
Position	TW M Donon	2	6	12 do	(to Sept. 30, 1888)	35 00
do do do	L. Bloquière	2 7 7 7	6	6 do	(to Sept. 30, 1888)	72 00 82 00
Avoca and Pointe au Chêne	J. McCallum	7	$\frac{3}{2}$	12 do	from do	108 00
Ayer's Flat and Kingscroft	C. E. Cartier	6,	2	12 do		74 00 40 00
Avlmer and Ottawa	A. M. Holt.	97	$\begin{array}{c c} 12 \\ 12 \end{array}$	12 do		247 50
Avignon and Matapediado do Avoca and Pointe au Chêne Ayer's Flat and Kingscroft Ayer's Flat and Railway Station Aylmer and Ottawa Aylmer and Railway Station	do	1	30		(from Oct. 1, '88)	124 76
Bagotville and Chicoutimi	1	1	Asrea	Season	ıs 1888	49 50
The state of the s	A. A. A. C.	Ü	Tro red	LI CONDO!		

. Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	Period.	Amount.
Bagotville and Grande Baie Bagotville and Wharf Baie des Pères and Lake Témisca-	E. Levêque	3 18	do	Season 1888 do	\$ cts. 58 50 20 00
mingue Baillargeon and Railway Station Baldwin's Mills and Barnston Barachois de Malbaie and Wharf	B. Huot	3 3 5 4	3 3	12 months	30 00 40 00 84 00 70 85
Bassin du Lièvre and Ry. Station Batiscan and Railway Station Batiscan and St. Pierre les Becquets	F. X. Nanaville: T. Laguerre C. A. Maguy	$\begin{vmatrix} 1\frac{1}{4} \\ 3 \end{vmatrix}$	12 6	12 months	$\begin{array}{c} 66\ 00 \\ 100\ 00 \\ 45\ 00 \end{array}$
Beauce Junction and Jersey Mills	A. Lessard	$26\frac{1}{5}$	$\begin{bmatrix} 6\\6\\6\\12 \end{bmatrix}$	9 do from do 6 do (to Sept. 30, '88). 6 do from do	112 50 257 50 339 00 25 00
Beauce Junction and St. Joseph Beauharnois and Caughnawaga	J. Laguerre O. Duquette	15½	6	Special trips	10 50° 249 37
Beauharnois and Laberge	E. Rapin	5 3	6	12 do	50 00 25 16 34 94
Beauharnois and St. Etienne de Beauharnois	do	$\frac{1}{2}$	6	9 do (from July 1, '88)	121 50
Beauharnois and Valleyfield	B. Paré E. Rapin	15	6	3 do (to June 30, '88). 8 do 20 days (to Dec. 20, 1888)	49 50 142 93
Beaupré and St. Féréol. Beaurivage and Parkhurst Beauvoir and Ste. Marthe Bécancour and Ste. Gertrude	J. Machell J. E. Poirier	31	6 3	12 do	$\begin{array}{c} 100 \ 00 \\ 58 \ 00 \\ 50 \ 00 \\ 249 \ 00 \end{array}$
Bécancour and St. Grégoire Bécancour Station and Inverness Bedford and Pearceton	N. Vigneault W. Johnston J. Briggs	$\begin{vmatrix} 9 \\ 11 \\ 8\frac{1}{9} \end{vmatrix}$	6 7 6	12 do	197 19 312 00 210 00
Beebe Plain and Railway Station. Beech Grove and Quyon. Bellerica and Railway Station Bell Mount and Otter Lake	J. Mohr J. M. Pritchard.	51	$\begin{bmatrix} 12\\3\\6\\1 \end{bmatrix}$	12 do	$\begin{array}{c} 75 & 00 \\ 100 & 00 \\ 20 & 00 \\ 30 & 00 \end{array}$
Belœil Village and St. Hilaire Village Bennett and Maple Grove	P. Authier	$\frac{1}{3}$	$\begin{array}{ c c }\hline 12\\3\\2\\\end{array}$	12 do	150 00 50 00 50 00
Beranger and Dunham. Bergerville and Quebec Bersimis and Moisie. Bersimis and Sault au Cochon	S. Miller	$\frac{280}{26}$	6 4 2	12 do	90 00 755 00 550 00
Berthier (en bas) and Ry. Station. Berthier (en haut) and Isle Dupas. Berthier (en haut) and Ry. Station.	P. Moreau F. Plante	21	12 3 13 14 s)	12 do	78 00 60 00 197 45
Bic and St. Valérien de Rimouski	J. R. Colclough. J. Moisan	10 yds	7 w 5 12 6	12 do	444 00 23 09 100 00
Birchton and Railway Stationdo do Birchton and Sand HillBirchton and Sawyerville	R. Bridgette D. M. Caswell	. 10		3 do (to June 30, '88). 9 do from do . 12 do	6 50 19 50 54 00 260 00
Bishop's Crossing and East Dudswell Bisson and Railway Station Bisson and Saints Anges	H. R. Bishop F. Hamanne C. Drouin	50 yds 6	$\begin{array}{c} 2\\12\\3\end{array}$	12 do	40 00 40 00 90 00
Blanche and ThursoBlanchet and St. Lambert	M. McAndrew J. Paquet	16	3 3 6	12 do	60 00 180 00 20 00
Blanfold and Stanfold. Blue Bonnets and Railway Station. Bois de Filion and Ste. Thérèse de Blainville	A. Doré	1 2	$\begin{bmatrix} & 4 \\ 6 \\ & 2 \end{bmatrix}$	12 do	116 74 52 00 40 00

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
						\$ ets.
D' B INC	G P 1:	10	1	10		
Bois Franc and MattawaBolton Centre, Knowlton and		40	1	12 11	onths	375 00
Knowlton Landing	G. Bice	9	6		lo	475 00
Bolton Forest and Eastman	C. J. Fortin	2	3	4 (do 19 dys (from Nov.) 12, 1888)	19 29
Bolton Forest and Railway Station.	do	18	6	6 6	do 8 days (to Oct. 8.	
Bolton Forest and Railway Crossing	do	3	6	1 0	1888)do 2 days (to Nov.	13 56
• • • •		8	1		11, 1888)	3 69
Bonaventure Island and Percé	P. Bossy	3	$\frac{3}{1}$		dodo	60 00 300 00
Booth and Dumoine Bordeaux and Railway Station	G. Picard	46	12		do	10 00
Bordeaux and Sault au Récollet	Z. Berard	$\frac{23}{4}$	6	12	do	120 00
Boscobel and Roxton Falls Botreaux and Ormstown	W. Hackwell	8 41 41	$\begin{vmatrix} 1\\2 \end{vmatrix}$		do do	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Boucherville and Railway Station	A. Bemeur	133 yd			do (to Dec. 31, '88).	54 00
Boulogne and St. Eugène de Gran-	J. Rondeau	41	3	3 (do (to June 30, '88).	18 00
tham					do from do	54 00
Bourg Louis and Railway Station	P. Russell	3	6		do	75 00
Boynton and Fairfax Boynton and Railway Station	I. Towle	4 1 4	$\frac{3}{12}$		do	$75 00 \\ 25 00$
Brigham and Farnham Centre	P. E. O'Connor.	2	6	12	do	80 00
Brigham and Railway Station Bristol and Railway Station	J. Harrison	31/8	$\frac{12}{6}$		dodo	$\frac{48\ 00}{125\ 00}$
Bristol Mines and Elmside	R. Campbell	$\frac{3}{3}$	3		do	75 00
Bristol Mines and Elmside Britannia Mills and Railway Station	H. Guilbert	60 yds	12	12	do	20 00
Britonville and St. Sauveur Brome and Railway Station	J. Hamilton	$\frac{8}{\frac{1}{2}}$	$\frac{3}{6}$		dodo	$100 00 \\ 60 00$
Brompton and Brompton Falls	H. Addison	4	3	12	do ob	80 00
Brookbury and Robinson Broughton and Railway Station	R. Rowe	5 3	2 3		dodo	$\frac{48\ 00}{45\ 00}$
Broughton Station and East Brough-				12 (
ton	L. Beaudoin	$5\frac{1}{2}$	6		do	150 00 24 00
Broughton Station and Ry. Station. Broughton Station and Sacré Cœur		oo yas	12	12 (do	24 00
de Marie	J. Vallière, jr	6	6	1 0	do (to April 30, '88).	11 17
Broughton Station and West Broughton	M Rousseau	61/3	6	12	do	140 00
Brownsburg and Mount Maple	J. Warwick	$3\frac{1}{3}$	1	12	do	24 00
Bryson and Portage du Fort Bryson and Railway Station	J. Murtagh	8 5	$\frac{6}{12}$		do (to May 30, '88)	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
do do	J. Murtagh	5	12	10	do from do	162 50
Buckingham and High Rock	C. W. Pearson	21 & 20	6s. 3w.	12	do	565 11
Buckingham and Railway Station Buckland and St. Lazare	L. Laflamme	15	$\frac{12}{3}$		do (to Sept. 30, '88).	97 00 70 00
do do	L. Kemner	15	3	6 (${ m do} \ \ { m from} \ \ { m do} \ \ \ldots$	97 50
Buckland and St. Magloire	P. Tanguay	18	3 10		dodo	$177 00 \\ 20 00$
Bulwer and Railway Štation Burnside and St. Hermas Station	J. Wood	$\frac{1}{60}$	3		do (to July 31, '88).	
Cacouna and Railway Station (via						
St. Arsène)	J. B. Beaulieu	5	12	12	do	250 00
Cacouna and Railway Station	do				on 1888	35 42 50 00
Caldwell and Railway Station Calumet and Railway Station	H. Burch	100 v's	$\frac{6}{12}$		onths	26 00
Calumet and St. Rémi d'Amherst	L. Champagne	39	1	9	do (from July 1, '88)	210 00
Calumet Island and Collfield Calumet Island and Campbell's Bay	do	1 1 1			do (to Oct. 31, 1888). do (from Nov. 1, '88)	70 00 34 44
Calumet Island and Dunraven	C. Barsalou	5~	3	12	do	78 00
Campbell's Bay and Railway Station Campbellton and Paspebiac	P. McNally	40 yds	6		do (from July 1, '88) do (less fines)	$\begin{array}{c} 7 & 50 \\ 3,871 & 00 \end{array}$
Canterbury and Scottstown		4	2	12	do (less fines)	42 00
Cantley and Kirk's Ferry	M. Reid	3	3		do	85 00 125 00
Cartley and Lucerne	K. Blackburn		1	112	do	125 00
	0					

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
						\$ ets.
Cap à L'Aigle and Murray Bay	P. Savard	3	6	Season	1888	60 50
Cape Cove and Wharf	E. Bourget	1 2	Asreq	do		71 00
Cap Magdeleine and Ry. Station	S. L. Spafford	$\frac{1}{5}$	$\begin{array}{c c} 12 \\ 12 \end{array}$		(from Jan. 1, '89).	10 00
Cap Rouge and Quebec	J. Drolet	9	6	12 do 12 do		199 00
Cap St. Ignace and Railway Station	H. C. LaRue	11/3	12	12 do		90 00
Cap Santé and Les Ecureuils	P. Pagé	4 1 2		12 do		150 00
Cap Santé and Portneuf Carillon and Lachute	M. Campeau	$\frac{5}{10\frac{1}{2}}$	6	12 do 12 do		150 00 320 00
Carillon and Pointe Fortune	J. Larocque	1	12		3 days (to Oct.	
O '11 1 13 1 13 Ct. 12	D. D. I	0.51		0 1	13, 1888)	40 50
Carillon and Vaudreuil Station	D. Rochon	$ 25\frac{1}{2}$	6	6 do	26 days (broken period)	663 75
Casault and Railway Station	J. Ouellet	$\begin{vmatrix} 2\\ 5 \end{vmatrix}$	3	12 mon	ths	40.00
Castlebar and Danville	J. Jarvis		6	12 do		150 00
Castor and Hamilton Cove Caughnawaga and Wharf	R. Pincombe	$3\frac{1}{3}$	$\frac{1}{12}$	6 do 8 do	(from Oct. 1, '88). 20 days (to Dec.)	35 00
Caughnawaga and Whari	A, de Lorimer.	4	12	0 00	20, 1888)	63 37
Caughnawaga Ry. Station and Cha-						
teauguay	A. Desparois	75	6	3 do	11 days (from Dec	55 91
Causapscal and Railway Station	R. A. Blais	150 v's	12	12 do	21, 1888)	50 00
Cawood and Danford Lake	G. Tanner	9	1	12 do		52 00
Cedar Hall and Railway Station	J. Smith	60 yds	6	12 do		12 00
Cedars and Railway Station Chambly Basin and Railway Station	E. Bissonnette	3	$\begin{array}{c c} 12 \\ 12 \end{array}$	12 do 12 do		180 00 80 00
Chambly Canton and Ry. Station		4	12	12 do		80 00
Chambord and Dablon	J. Bilodeau	17	1	9 do		52 50
Chambord and Métabechouan do do	A. Sasseville C. Gagnon	9 9	3 6	3 do 9 do	(to June 30, '88).	43 75 262 50
Chambord and Roberval	A. G. Matte	11	6	12 do	from do	263 09
Chambord and Railway Station Champigny and Railway Station	J. Bilodeau	1	12	12 do		148 80
Champigny and Railway Station	H. Robitaille	$\frac{1}{2}$	12	7 do 12 do		46 67 90 00
Champlain and Railway Station Channay and Piopolis	F. Poulin	9	12	12 do 6 do		25 00
do . do	P. B. Keens	9	1	6 do	from do .	30 00
Chantelle and Rawdon	A. Morin	17	3	12 do		210 00
Chapeau and Fort Coulonge Chapeau, Pembroke and Fort Wil-	J. G. Poupore	21	3	12 do		345 00
liam	A S. Maloney	22	6&3	12 do		499 00
Charlemagne and L'Assomption	J. Belhumeur	9	6	12 do		250 00
Charlemagne and Montreal Charlesbourg and Charlesbourg West	M. Archambault	$\begin{vmatrix} 16 \\ 2 \end{vmatrix}$		12 do 12 do		$475 00 \\ 25 00$
Charleshourg and Quebec	do	5	2 2 1	12 do		80 00
Charteris and North Clarendon	J. Ralph	3		7 do 5 do	(to Oct. 31, '88)	11 67
do do Chartierville and La Patrie	do	3 9	$\frac{3}{2}$	5 do 12 do		16 67 75 00
Chathoro' and St. Philippe d'Argen-	-]	1	2	12 00		15 00
teuil	W. Douglas	21		12 do		39 00
Chatillon and St. Zéphirin Chaudière Curve and Ry. Station	C. Castonguay	5)	3	12 do 12 do		$\begin{array}{c} 64 & 00 \\ 20 & 00 \end{array}$
Chaudière Mills and Ry. Station.	do	3.1	6	12 do 12 do		100 00
Chaudière Mills and Ry. Station Chaudière Station and Ry. Station	A. McTeer	300 yd	6.	12 do		35 00
Chaumont and St. Agapit	T. Paquet	3	3	12 do		40 00
Chelsea and Old Chelseado do do	G. Edmonds			9 do 3 do		37 50 15 00
Chelsea and Ottawa	R. Hastey	9	6	3 do	(from Jan. 1, '89)	50 00
Chemin Taché and St. Cyprien	G. Dallaire	6	1	12 do		35 00
Chemin Taché and St. François Xavier de Viger	O Tremblay	6	2	12 do		60 00
Cheneville and Namur	F. Farant	. 9	3	12 do		130 00
Cheneville and Papineauville Station	H. W. Raby	23	6	12 do		230 00
Cherry River and Magog Chester and North Ham	D. Coté	13	3 3	12 do 12 do		100 00 120 00
Chicoutimi and Grande Baie	U. Gobeil	13	6	6 do		
	5					

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	P	eriod.	Amour	nt.
						8	cts.
Chitii 1 III-htiII-	Ta Cimana	40	0 6 6	110	(1 (2)		
Chicoutimi and Hebertville Chicoutimi and Laterrière				12 months	(less fines)	$\frac{662}{284}$	
Chicoutimi and Murray Bay River.			6		Sept. 30, '88)	655	
Chicoutimi and Tremblay	N. Laforge	2	6	12 do			00
Chûte aux Iroquois and L'Annon-		16	1	Season 188	8	57	75
ciation	J. Demers	16	1	12 months		75	00
Chûte aux Iroquois and St. Jovite.	P. Marinier	20	2	12 do		180	
Clarker and St. Paul's Bay	E. Gauthier	$7\frac{1}{2}$	$\begin{vmatrix} 2\\3 \end{vmatrix}$			$\begin{array}{c} 72 \\ 156 \end{array}$	00
Clapham and Inverness Clarenceville and Lacolle Ry. Station	M. J. Burnot	4	6			240	
Clarenceville and Wolfe Ridge	do	4	3	12 do			00
Coaticook and Canaan, U.S	A. Tribey	19	2		Sept. 30, (88)	30	00
do do	M. Trihey	19	2	6 do fro	$\begin{array}{cccc} \text{om} & \text{do (less)} \\ \text{fine)} \end{array}$	98	08
Coaticook and North Coaticook	E. Tomkins	15	12	3 do (to	June 30, '88)		50
do do	J. Meade	$1\frac{1}{2}$	12	9 do fro	om do		79
Coaticook and Rock Island	H. A. Channelle.	$\frac{20}{20}$	6 6	3 do (to 9 do fro	June 30, '88)	$\frac{118}{337}$	
Coaticook and St. Malo	C. Breault	30	2		om (10	380	
Coleraine Station and Ry. Station	J. Roberge	67 yds.	12	12 do		40	00
Coleraine Station and Sandborn	F. Hagerty	14	3			196	
Coleraine Station and Wolfstown Collfield and Railway Station	M Hughes	9	3 6			128 50	00
Como and Oka			6		dys. (broken	170	(10
					period)		10
Compton and Martinville		6	$\frac{6}{3}$	12 months	Oct. 31, '88)	200	50
Compton and Ste. Edwidge Compton, Coaticook and Ste. Ed-	G. Boulay	10	9	7 do (to	Oct. 31, 88)	01	1,7()
widge	do	10 & 9	3	5 do (fr	om Nov. 1, '88)	125	00
Contreceur and Railway Station	J. Hurteau	1 4	12		dys. (to Oct.)	24	00
Contrecœur and Varennes	H Handfield	18	6		15, '88)dys. (from Oct.	21	66
		1			15, '88)	258	69
Cookshire and Island Brook	J. Miller	1	12	12 do		225	
Cookshire and Railway Station Cooper's Corners and La Guerre	S. J. Usgood	14	$\begin{array}{c c} 12 \\ 12 \end{array}$	400 3			00
Corbin and Frontier	A. Roberts	2^4	6				00
Côteau du Lac. Coteau Landing and							
Railway Station	N. Deguire	2 & 3 2	$12 & 6 \\ 19$		• • • • • • • • • • • • • • • • •	$\frac{130}{200}$	
Côteau Landing and Ste. Zotique.	O. D. Prieur	21	6	10 1			00
Côteau Station and St. Clet	M. Besner	$\frac{2^{1}_{2}}{6}$	6	3 do (1	to June 30, '88)	50	00
do do Côte St. Louis and Mile End	J. Lalonde	6,	6		com do	150	33
Côte St. Michel and Montreal	L Tassé	$6\frac{2}{5}$	6 3	4 do (1	to July 31, '88)		00
Côte St. Michel and St. Léonard de	2. 2.0000	02		1 40	40	-	
Port Maurice	do	$1\frac{1}{2}$	3	4 do	do		33
Côte St. Paul and Railway Station. Covey Hill and Vicars	W. Orr	$\frac{1}{2}$					00
Cowansville and Railway Station.	J.E.O'Halloran	1					00
Craig's Road Station and Frechette.	N. Fréchette	$2rac{7}{2}$				50	00
Craig's Road Station and Railway	N Fournier	10 vide	12	12 do .		20	00
Station	N. Fournier	10 yas	.12	12 'uo .		20	00
vester East	L. Demers	24		12 do .		590	
Cranbourne and Culdaff	W. Wilson	5.		12 do .			48
Cranbourne and Frampton Cross Point and Ste. Anne de Res-	v. Lacroix	8	3	12 do .		120	00
tigouche	C. Guay	2	6	12 do .		100	00
Cross Point and Sillarville	A. McDonald	$10\frac{1}{2}$	2	9 do (1	to Dec. 31, '88)		00
do do Cumberland Mills and Riv. Gilbert.	J. Hume Taylor	$\frac{10\frac{1}{2}}{8}$	$\frac{2}{1}$	40 3	rom do		00
		0		12 uo .		,,0	0.9
Dablon and Railway Station	G. Larouche	$\frac{1}{5}$	3	3 do (1	from Jan. 1, '89)	6	25

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	Period.	Amount.
Dalesville and Edina	P. McArthur W. Watchorn	6	$\begin{bmatrix} 1 \\ 6 \\ 2 \end{bmatrix}$	12 months	. 180 00
worth. Dalhousie Mills and Peveril. Danby and Railway Station. Danford Lake and Kazubazua. Danford Lake and Otter Lake. Danville and Railway Station. Danville and Ste. Camille.	M. Meilleur A. Morrison S. D. McGee H. Heeney	50 yds	$\frac{12}{2}$	12 do	60 00 12 00 90 00 123 50
Danville and Ste. Camille Danville and St. George de Windsor Danville and South Ham D'Auteuil and Kingsey Falls Delisle and St. Joseph d'Alma	J. Godbout L. A. Turcotte	10 24	3 3 2 2	12 do	120 00 370 00
Deli and Scotstown. Denison's Mills and Richmond East Dequen and Railway Station. Derby Line, Rock Island, Stanstead and Railway Station.	M. J. McDonald J. R. Denison O. Couture H. A. Channell .	$egin{array}{c} 5rac{1}{2} \\ 7 \\ 2 \\ 1rac{1}{2} \end{array}$	$\begin{bmatrix} 1\\2\\3\\24 \end{bmatrix}$	1 do (from Mar.1,'8 12 do	9) 4 16 125 00 12 50 180 00
Deschambault and Railway Station Desjardins and Railway Station Dewitville and Railway Station Dillonton and Eastman D'Israëli and Railway Station Dixville and Railway Station	A. Blondeau J. Holiday F. P. Dufresne J. E. Rheault B. R. Baldwin	$\begin{vmatrix} 100 \text{ y's} \\ 3 \\ 120 \text{ y's} \\ \frac{1}{2} \end{vmatrix}$	$\frac{3}{12}$	12 do	20 00 75 00 63 00 32 00 60 00
Domaine de Gentilly and Gentilly. Dorval and Railway Station. Douglasburg and Napierville Douglastown and Wharf Doyle and Sheenboro. Drummondville and Melbourne	D. Descary P. Paré	$\begin{bmatrix} 2 \\ 1 \\ 12 \\ 24 \end{bmatrix}$	6	12 do	100 00 13 33 42 00 70 00 579 00
Drummondville and Ky Station Drummondville and St. Cyrille de Wendover Duclos and Wakefield. Dudswell Centre and Ry Station Dufresne's Mills and Ste. Christine.	S. Guèvremont. S. T. Gatignal. C. Lothrop. A. Rondeau	$\begin{array}{c c} & \frac{1}{3} \\ & \cdot 5 \\ & 15 \\ & 2\frac{1}{4} \\ & 2\frac{1}{2} \end{array}$	6 2 12 3	12 do	148 00 95 00 200 00 7 50
do do Dufresne's Mills and S'th Durham. Dunboro, Scotsmore and Railway Station. Dundee and Railway Station. Dunham and East Dunham.	F. E. Scott J. Tvo	$\begin{vmatrix} 4 \\ 2\frac{1}{2} & 2 \\ \frac{3}{4} \end{vmatrix}$	12	9 do (from do 12 do	125 00 100 00
Dunham, Stanbridge East and Stanbridge Station	J. H. Martin W. H. McLean	13 & 7	6 3	12 do (less fine) 12 do 12 do	60 00 41 75
East Angus and Railway Station East Angus and South Dudswell East Arthabaska and Larochelle do do do East Arthabaska and St. Fortunat East Arthabaska and Stanfold do do	F. P. Buck E. F. Orr. L. Boulanger D. Boulanger P. Juneau D. Luneau T. Roux	100 yd 44 4 4 17 5	$\frac{12}{3}$	12 do	235 50
East Clifton, Sawyerville and Camaan, U.S. East Farnham and Railway Station do do East Magdala and Lyster.	W. W. Sawyer C. H. Mansfield.	28-6	$\begin{bmatrix} 2 & 1 & 1 & 6 & 6 & 1 & 6 & 6 & 1 & 6 & 6$	12 do	26 00

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	Period		Amount.
Eastman and Railroad Station	S. Daignault	1	12	3 months 22 d		\$ cts.
East Templeton and Perkins	C. Robitaille	9	2		10, '88)	29 36 100 00
East Templeton and Ry. Station Echo Vale and Railway Station	P. Devost J. P. Jones	1	12	12 do		110 00 18 00
Echo Vale Railway Station and Piopolis	J. Francœur, jr	81/2	6	12 do		240 00
Eden Dale and St. Rémi d'Amherst.	E. Thomas	39	1	3 do (to Jun	e 30, '88).	52 50
Egypte and St. Ephrem d'Upton Elgin Road and Railway Station		$\frac{8\frac{1}{2}}{1}$	6 3			168 00 30 00
Elmside and Railway Station	R. Cambpell		6	12 do		125 00
Elmside and Railway Station Emileville and St. Pie	M. Gauthier, jr	1	6			40 00
Escuminae and Fleurant Esquimaux Point and Lourdes du	I. LeBlanc	8	1	12 do		25 00
Blanc Sablon	J. V. LeGresley.	420		1 trip.		350 00
Esquimaux Point and Moisic	C. Ahier	125	10	Season 1888-89.		420 00
Etchemin and Lévis Etchemin and St. Jean Chrysostôme.	A. Pichet	$\frac{6}{3}$	$\frac{12}{6}$	$12 \text{ months} \dots$ $12 \text{ do} \dots$		$245 00 \\ 112 00$
Etchemin and South Quebec.	P. E. Bourassa	4	6			100 00
Farnboro' and West Shefford	J. Enright	$2\frac{1}{2}$	3.	12 do		52 00
Farndon and Railway Station	S. Paquette					25 00
Farnham and Magenta	J. Fournier	5	2			50 00
Farnham and Railway Station Farnham and Stanbury		84	$\begin{bmatrix} 24 & 36 \\ 2 \end{bmatrix}$			119 07 80 00
Farrelton and Stagsburn	A. McDonald	6	1			40 00
Father Point and Rimouski	P. Beaulieu	$6\frac{1}{2}$	6	12 do		140 00
Fleuriau and Ste. Luce	A. Caron	18	3			180 00 32 00
Fontenelle and Gaspé Basin Fonteney and Melbourne	J. Stanley S. Frazer	6	$\frac{1}{2}$			48 00
Fort Coulonge and Railway Station.	J. G. Bryson	1 3	$\bar{6}$	40 3		70 00
lons	J. B. Fortin	$9\frac{1}{2}$	3			75 00
Fortin and Matane Foster and Railway Station	N. Fortin	6	$\frac{1}{12}$			$\begin{array}{c} 30 \ 00 \\ 32 \ 00 \end{array}$
Fox River and Grande Grève	E. Tapp	20^{19}	3	12 do		285 00
Fox River and Ste. Anne des Monts.	J. Philibert	107	2	12 do		1,111 41
Frampton and Ste. Hénédine	J. Audette	13	6 3			250 00
Frampton and Springbrook Franklin Centre and Hemmingford.	C. McGinnis	16				60 00 410 00
Franklin Centre and Huntingdon	J. Paulman	16	6	1 do (to Apr	. 30, '88)	37 08
do do	F. W. Bates	$egin{array}{c c} 16 \ \hline 2 \end{array}$		$egin{array}{lll} 11 & \mathrm{do} & \mathrm{from} \ 12 & \mathrm{do} & \dots \end{array}$		385 00
Franklin Centre and Starnesboro Frelighsburg and North Pinnacle Frelighsburg and St. Armand Sta-	G. C. Chadburn.	$6\frac{1}{2}$		40 1		64 00 89 48
tion	A. Shelters	10				389 75
Frelighsburg and Sweetsburg Frost Village and Waterloo	A. Pickle	$13\frac{1}{2}$ $2\frac{1}{2}$				339 00 94 00
Fulford and Waterloo	L. Bourgeois	42		4 0 3		60 00
Galson and Gould	F. Z. Delisle	$\frac{5\frac{1}{2}}{4}$		4.0		42 00 48 00
Garthby Station and Railway Station	TE T	1	12	12 do		73 32
Gasparine and Holton	F. Delage	3	2	12 do		34 00
Gaspé Basin and Gaspé Bay South.	J. H. Eden	$4\frac{1}{2}$				60 00
Gaspé Basin and Grande Grève Gaspé Basin and Percé		$\frac{15}{36}$		12 do 12 do (less fin	e)	230 00 $1,201 00$
Gaspé Basin and Wharf		1	As req	Season 1888		60 00
Genoa and St. Hermas	J. Gordon	$3\frac{1}{2}$	$\tilde{2}$	12 months		48 00
Georgeville and Knowlton Landing.		$\frac{2}{10}$		$egin{array}{cccccccccccccccccccccccccccccccccccc$		$ \begin{array}{r} 52 & 00 \\ 260 & 00 \end{array} $
Georgeville and MagogGeorgeville and Magoon's Point		5 1 5				52 00
Georgeville and Stanstead Junction.	W. H. Rediker	13	6	12 do		335 00
Geraldine and Stockwell	C. Newman	3 5		40 7		26 00 10 00
Glengyle and Railway Station	G. Morrison		6	12 do		10 00

		in .	No. of Trips per Week.			
Name of Route.	Name of	Distance Miles.	f T We		Period.	Amount
Name of Route.	Contractor.	Distand Miles.	0.0 er		i eriod.	Amount.
	!	Ä	za			
						\$ ets.
Glen Iver and Sherbrooke	J. McIver	$7\frac{1}{2}$	2	12 mon	ths	64 00
Glen Robertson and Mongenais Gould and North Hill	W. T. Robinson.	$\begin{array}{c} 8 \\ 4\frac{1}{2} \end{array}$		15 days	ths	9 08 42 00
Gould and Red Mountain	C. Smith	5^{-}	2	12 do	0118	40 00
Gould and Scotstown	S. Labonne	$7\frac{1}{2}$	6	12 do		220 00
Gould Station and Railway Station	R. H. Cowan	1	12	12 do	,	40 00
(Frankoro and Granky	G. Vittle	6 [*] 9	3 6	12 do 12 do		114 00
Granby and Milton	S. Page	9 1 3		12 do 12 do		299 00 75 00
Granby and Shefford Mountain	E. Deslauriers	8	3	12 do		150 00
Grande Baie and L'Anse St. Jean. Grande Baie and St. Urbain	A. Fortin	54 63	$\frac{2}{3}$	12 do 5 do	(from Nov. 1, '88)	$\begin{array}{c} 230 \ 00 \\ 222 \ 08 \end{array}$
Grand Cascapedia and New Rich-		41				
mond	W. Robertson M. Cabill.	$\frac{4\frac{1}{2}}{14}$	2 3	12 do do		80 00 180 00
Grande Ligne and Mount St.						
Nicholas	S. Boissonneault W. E. Page	$\frac{2\frac{1}{4}}{6}$	3 6	11 do 3 do	(to Feb. 28, '89) (to Sept. 15, '88)	36 66 59 25
Grand Métis and Railway Station	do	3	12	12 do		150 00
Grande Mère and Lac à la Tortue.	A. Scott	$rac{2rac{1}{2}}{4}$	6	12 do 9 do	(from July 1, '88)	$\begin{array}{cccc} 60 & 00 \\ 103 & 50 \end{array}$
Grande Mère and Ste. Flore Grandes Piles and La Tuque Grandes Piles and Ste. Flore	P. Chandonnet.	72	1	12 do	(Hom o dry 1, 66)	237 00
Grandes Piles and Ste. Flore Grand River and Wharf	T. Maheux	7 4	$ _{ m Asreq}$	3 do	(to June 30, '88)	34 50 54 00
Grand St. Esprit and Ste. Monique.	J. A. Pinard	23		12 mon	ths	50 00
Green River and St. Antonin		$\frac{3\frac{7}{2}}{5}$	6	12 do 12 do		60 00 115 00
Green River and St. Modeste Greenshields and St. Cyr	R. E. Dyson	$\frac{3}{4\frac{1}{2}}$	1	12 do		25 00
Green Mount and Thorne Centre	G. McDowell	6	$\frac{3}{2}$	12 do 12 do		78 00
Grenville and Lost River Grenville and Railway Station	J. A. Wiliamson	$\frac{19}{1\frac{1}{2}}$	$\frac{2}{6}$	12 do		178 00 48 00
Crindstone Island and House Har-		6	1	0 do		96 00
bor, &c	L. Coté.	$\frac{0}{3\frac{1}{3}}$	$\frac{1}{12}$	9 do 12 do	(from July 1, '88)	$\frac{36\ 00}{192\ 00}$
Hadlow Cove Road and St. David		_				
de Lévis	J. Halle	1	6	12 do		50 00
Hallerton and Hemmingford Halverson and Masham Mills	T. Kenny	4章 11	$\frac{3}{2}$	12 do 12 do		75 00 100 00
Hardwood Flat and Robinson	S. W. Tracy	$3\frac{1}{2}$		12 do		26 00
Harvey Hill Mines and West Broughton	L E Berthelot	3	6	6 do	(to Sept. 30, '88).	40 00
do do Hathaway and Railway Station	J. McGee	3	6	6 do	from do	40 00
Hathaway and Railway Station Hatley and Railway Station	W. Cosgrove	$\frac{1\frac{1}{2}}{3\frac{1}{2}}$	$\frac{6}{6}$	12 do 12 do		50 00 125 00
Heathton and South Barnston Hebertville and Metabechouan	W. W. Heath	$1\overset{rac{9}{2}}{2}$	6	12 do		40 00
Hebertville and Metabechouan	E. Girard	12	3	10 do	(from June 1, '88, less fine)	306 75
Hebertville and St. Joseph d'Alma.		12		10 do	(from June 1, '88)	316 67
Hedleyville and St. Roch de Québec Helena and White's Station	J. DeBlois	2 5 43	$\frac{12}{6}$	12 do 7 do	(to Oct. 31, '88).	$62 60 \\ 145 83$
do do	T. Salen	4	6	5 do	from do	61 25
Hemison and St. Malachie	T. Smith, jr	$\frac{3}{6}$	1 2	12 do 12 do		25 00 35 00
Hemmingford and Roxham Henrysburg and Lacolle	G. Giroux	$8\frac{1}{2}$	$\frac{2}{3}$	12 do		120 00
Hongyeville and Stanbridge Station	P. Girard.	8	6	12 do 12 do		189 00
Heyworth and Railway Station High Rock and Notre Dame du Laus	D. vincent	29	1	12 do		$ \begin{array}{r} 60 \ 00 \\ 256 \ 50 \end{array} $
High Rook and Poltimore	J H Bonsall	$\frac{6}{3\frac{3}{4}}$	3s. 2w.			75 00
Hochelaga and Longue Pointe Hochelaga and Montreal	o. II. Drown	$2\frac{1}{2}$		10 do 12 do	(from June 1, '88)	208 33 459 52
Holland's Mills and Chalifoux Point	G. Gowan	$2\frac{1}{2}$		12 do		60 00
Holton and Ste. Clothilde de Chateauguay	C. B. Bergevin.	2	3	12 do		34 00
	56					

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
						\$ ets.
House Harborand Magdalen Islands Howick and Railway Station Howick and St. Chrysostôme Hull and Ottawa.	L. Parent T. Hebert	30 9 ¹	1 12 6	Season, 12 mon 12 do	1888ths	26 25 49 00 240 00
	nev	2	12	6 do		50 00
Hull and Street Letter Boxes Hunterstown and Louiseville Huntingdon and Railway Station	T. Marineau	$17_{\frac{1}{2}}$	$\begin{array}{c c} 12 \\ 6 \\ 12 \end{array}$	10 do 12 do 12 do	(from June 1, '88)	120 40 370 00 70 00
Inverness and Kinnear's Mills	J. Quan	$9\frac{1}{2}$	3			115 00
Inverness and Leeds	J. McKeage J. Jamieson	12 17	6 3			355 00 178 00
Iron Hill and Sweetsburg Island Brook and New Mexico		8	3	12 do		120 00
Island Brook and New Mexico Isle aux Coudres and St. Paul's Bay	W. H. Taylor	9	$\frac{3}{2}$	12 do 12 do		52 00 340 00
Isle aux Coudres and Wharf	E. Dufour	ő	$\frac{1}{2}$	Season,	1888	78 75
do do Isle aux Grues and Montmagny	T. A. Pelletier	6	2	Special 12 mon	tripsths	3 00
Isle Bizard and Ste. Geneviève Isle Perrot and Ste. Anne de Belle-	E. Roussin	$\frac{1}{2}$	6	12 do		225 00 50 00
vue	J. Montpetit	$5\frac{1}{2}$	6	12 do		156 00
Verte	T. Fraser L. A. Bertrand.	6 1 10	$\begin{array}{c} 1\\12\\2\end{array}$	12 do 12 do 12 do		50 00 80 00 100 00
						100 00
Jersey Mills and Marlow	M. Cahill	13,	$\frac{3}{12}$	12 do 12 do		230 00 28 00
Joliette and Railway Station	J. Mirault	8	12	12 do		544 00
Joliette and St. Liguori	O. Robichaud M. Riopelle	9	6 6	6 do	(to Sept. 30, '88).	73 50
do do Joliette and Ste. Mélanie		14	6		from do	$ \begin{array}{cccc} 112 & 50 \\ 285 & 00 \end{array} $
Joliette and St. Paul d'Industrie Joynt and North Wakefield	F. Perreault	4 9	6 2	12 do 12 do		$72\ 00\ 105\ 00$
Kamouraska and Railway Station.	J. B. Pelletier	5	12	12 do		300 00
do do	N. Pelletier	5	12	12 do		150 00
Katevale and North Hatley		$4\frac{1}{2}$	3	4 do	26 dys (from Nov. 5, '88)	28 34
Katevale and Railway Station	E. Lemay	$1\frac{1}{3}$	6	7 do	4 dys (to Nov. 4, '88)	99 90
Kazubazua and Lake St. Mary	X. B. Léveillé	5	1 & 2	12 do		33 32 75 00
Kazubazua and Venosta	J. McCaffrey	7	1	12 do		50 00
Keith and Robinson Kelso and Trout River Ry. Station.	J. McLennan D. McFarlane	$\frac{8\frac{1}{2}}{3\frac{1}{2}}$	3 6	12 do 12 do		96 00 144 00
Kildare and St. Alphonse	G. E. Trudeau.	12^{2}	3	12 do		156 00
Kingsey Falls and Lorne	M. Morin	4	12	12 do		230 00
Kingsey Falls and Robson		$\frac{7}{9}$	$\begin{vmatrix} 2\\3 \end{vmatrix}$	12 do 12 do		60 00
Kinnear's Mills and Leeds Knowlton and Railway Station				12 do 12 do		$\frac{160 \ 00}{72 \ 00}$
Knowlton and St. Etienne de Bolton	L. Poulin	9	3	12 do		135 00
La Baie and Nicolet	T. Vigneau	9	6	12 do		249 00
La Baie and St. Zéphirin	do ,	8	6	12 do	• • • • • • • • • • • • • • • • • • • •	220 00
La Baie and Yamaska Labarre and Métabechouan	do	$\begin{array}{ c c c c }\hline 24\frac{1}{2} \\ 12 \end{array}$	$\frac{6}{3}$	12 do 2 do	(to May 21 '22)	750 00
Labarre and Metabechouan Labarre and St. Joseph d'Alma	C. Hebert		3	2 do 2 do	(to May 31, '88) do	32 50 33 33
La Beauce and Railway Station	J. B. Gregoire	1 3	12	12 do		50 00
La Beauce and St. Elzéar	J. Racine	3	$\frac{6}{12}$	12 do 8 do	(fnow Ang 1 200)	80 00
L'Acadie and Railway Station L'Acadie and St. Jacques le Mineur	E. F. Poirier	$6^{\frac{1}{3}}$	6	12 do	(from Aug. 1, '88)	34 66 160 00
Lachenaie and Terrebonne	A. Lapierre	$4\frac{1}{2}$	6	12 do		144 00
Lachevrotière and Railway Station. Lachine and Lachine Rapids	V. Portelance	21	6	12 do 6 do	(to Sont 20 200)	12 00
Lachine Locks and Railway Station.			6 12			65 00 60 00
	5					

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	Period.	Amount.
T I D I D D C	D. D. J		,.	0 11 (6 0 1 1 100)	8 cts.
Lachine Rapids and Ry. Station Lachine Station and Letter Box		2		6 months (from Oct. 1, '88) 12 do	50 00 30 00
Lachute and Lachute Mills	J. Fish	1	12	12 do	62 00
Lachute and Lakefield	F. Rogers	9	2	12 do	74 00
Lachute and Railway Station			$\frac{12}{2}$	12 do	-36 00
Lachute and Shrewsbury Lac Masson and St. Jérôme	M. Piché	$\begin{array}{c} 14\frac{1}{2} \\ 22 \end{array}$	$\frac{2}{3}$	12 do	$103 00 \\ 250 00$
Lac Masson and Ste. Lucie de Don-				12 40	200 00
Caster	N. Forget	10	3	12 do	156 00
Lacolle and Odelltown	W. D. McCallum	$\frac{3}{3}$	3 3	6 do (to Sept. 30, '88). 6 do from do	24 00 24 00
do do	J. B. Bédard	$\frac{3}{2}$	3	12 do	30 00
Lac Rond and Namur	D. Corbell	7	1	12 do	40 00
La Décharge de la Rivière à l'Ours and la Fourche des Chemins	T Shooby	6	1	12 do	26 00
Lac Aylmer and Lake Weedon		12	6	12 do	36 00 179 00
Lac Beauport and QuebecLac Etchemin and Langevin	P. Brown	13	2	12 do	150 00
Lac Etchemin and Langevin	L. Mercier	12	6	12 do	290 00
Lac Etchemin and Ste. Rose de Watford	A Chahot	12	1	12 do	50 00
Lac Etchemin and Standon	J. Fortin		6	12 do	270 00
Lac St. Joseph and Railway Station	R. Sisson	1	12	12 do	24 00
Lac Témiscamingue and Mattawa.	E. J. Smith	136 s.,	1	10 1-	1 909 04
Lake Témiscamingue and North		140 w.	1	12 do	1,363 64
Témiscamingue	A. McBride	26	1	12 do	200 00
Lake Weedon and Railway Station.	F. Brière	60 yds	6	12 do	24 00
Lamartine and Railway Station	P. Cloutier	3 14	4 6	12 do	50 00 375 00
Lambton and Railway Station Lambton and Stornoway	E. Bélanger.	9	6	12 do	212 00
Lambton and Valletort	N Boutin	8	6	12 do	194 48
Landreville and Ormstown	V. Brault	4	2	12 do	50 00
Landreville and Ormstown. Land Villa and Railway Station L'Annonciation and Nominingue Lanoraie and Railway Station	C. Lavalle	$\frac{2}{12}$	$\frac{6}{1}$	12 do	48 00 80 00
Lanoraie and Railway Station	P. Delisle	6	6	6 do (to Sept. 30, '88).	44 76
do do	N. Delisle	0	6	6 do from do	44 74
L'Anse à Giles and Railway Station	J. F. Giasson	2 81	$\frac{6}{1}$	12 do	76 25 40 00
L'Anse à la Cabane & Magdalen Islds L'Anse au Foin and Tremblay	E. Harvey	8	4	4 months (to July 31, '88)	52 00
00 00	r. Tremblav	8	4	8 do from do	104 00
La Petite Rivière, Que., & Ry. Stat'n	A. Roy	1 8	6	12 do	35 00
La Petite Rivière St. François and	P Bouchard	7	6	12 do	200 00
St. Cassien des CapsLa Plaine and Railway Station	C. Gauthier	11	12	12 do	12 00
Laprairie and Railway Station	A. Lamarre	$6^{\frac{3}{4}}$	12	2 do (from Feb. 1, '89)	11 66
La Présentation and St. Hyacinthe. L'Assomption and Railway Station.	H. Auger	6 4½	$\frac{6}{12}$	12 do	$200 00 \\ 41 66$
L'Assomption and St. Sulpice	J. Royal	5	6	12 do (10 May, 01, 00).	175 00
L'Assomption and St. Sulpice Laurentides and Railway Station	J. M. V. Latour	1	12	12 do	75 00
Laurentides & St Calixte de Kilkenny	D. Thoum	10	3	9 do (to Dec., 31, '88). 3 do from do	112 50 30 00
do Laurel and Lost River	M. McCluskev	$\frac{10}{6}$	1	3 do from do 12 do	36 00
Lauzon and Lévis Lauzon and St. Joseph de Lévis	H. Martin	2	12	12 do	100 00
Lauzon and St. Joseph de Lévis	E. Ruel	$1\frac{1}{4}$	12	12 do	140 00
Laval and QuebecLavaltrie and Railway Station	A Laviolette	17 8	$\frac{2}{6}$	12 do	$100 00 \\ 192 00$
Lawrenceville and North Stukely	C. Colin	4	3	12 do	100 00
Lazy Brogan and New Richmond	R. Brash	45	6	1 do 8dys(toJly28,'88)	208 00
Leeds and St. Sylvester Lennoxville and Millby. Lennoxville and Railway Station	J. Craigie	9 5	$\frac{3}{6}$	12 do	$110 00 \\ 124 00$
Lennoxville and Railway Station	E. W. Abbott	0 1 11	$\frac{6}{24}$	12 do	101 00
Lennoxville—C. P. Ry. Station and					
G. T. Ry. Station.	do	25 yds	12	4 do 11 days (from Nov.	19.00
Leopold and Shrewsbury	J. Thompson	6	2	21, 1888) 12 do	18 00 60 00
	58				
	00				

Name of Route.	Name of	mee in	of Trips Week.	Period.	Amount.
	Contractor.	Distance Miles.	No. c	1 0110011	ZIMOUIT.
L'Epiphanie and Railway Station	E. Leblanc	3	12	12 months	100 00
do do	do	3		4 do 3 dys (to Nov. 18, 1888)	6 20
L'Epiphanie and St. Jacques L'Epiphanie and Ste. Julienne	T. Belle	$\frac{12\frac{1}{2}}{18}$	6	12 do	$\frac{325}{480} \frac{00}{00}$
Les Eboulements and Settrington Les Eboulements and Wharf		8 3	3	Part of season 1888	75 61 38 00
do do Les Escoumains and Sault au Cochon Les Escoumains and Tadousac	F. Tremblay J. Boissonneault	35	3	Balance of season 1888 12 months	232 50 675 00
Lévis and Quebec	H. Martin	27 1	12&18	12 do (less fine)	478 00 387 50
do dodo do do	H. Guav			Special trips	$ \begin{array}{c} 18 & 00 \\ 100 & 00 \\ \end{array} $
Lévis and Grand Trunk Rv. Station	F. Bégin J. Rouleau		1	do	4 00 18 00
Lévis and Intercolonial Ry. Station do do do	H. Martin A. Bilodeau.	4	24	12 months	$\begin{array}{c} 1 & 00 \\ 90 & 00 \\ 0 & 50 \end{array}$
do do	H' Romn		1	do	0 50 45 00
Lévis & Quebec Central Ry. Station. Lévis and St. Michel	M. Guay J. Rouleau	15	6	12 do Special trips	$245 00 \\ 3 50$
Levis, I.C. Ry. Station & G. C. Stati Levis, I.C. Ry. Statn. & G. T. Ry. Stati	D. Pouliot			do	0 50
Levis and Street Letter Boxes Levis and Sub-Office	E. Bédard	$92^{\frac{1}{3}}$	18 12	12 months	$\begin{array}{c} 331 \ 25 \\ 200 \ 00 \end{array}$
Levis and Three Rivers Lineboro' and Railway Station	J. Wood	1/3	12	12 do	$\begin{array}{c} 2,580 & 00 \\ 16 & 00 \end{array}$
Liniere and MetgermetteL'Islet and Railway Station	M.E. Ballantyne	$egin{pmatrix} 13rac{1}{2} \ 2rac{1}{4} \ 2rac{1}{4} \ \end{bmatrix}$	$\begin{array}{c} 2\\12\\12\end{array}$	12 do	97 00 140 00
do do L'Islet Station and St. Cyrille Longueuil and Montreal	J. B. Cloutier	$7\frac{1}{2}$	2	3 do (to June 30, '88). 3 do do Special trips	35 00 26 00 200
Longueuil and Railway Station	G. Brissette	$\frac{1}{3}$	24 12	6 mths.15dys(to Oct.15'88) 5 m. 16 dys. from do	5 00 75 27 34 18
do do Lorette and Railway Station Lorne and Railway Station	L. Richard E. D. Adams	200 y's	12 12	12 months	200 00
Lotbinière and Rivière Boisclair Louiseville and Nancy	J. N. F. Lemay. R. Caron	6	3 2	12 do 9 do (from July 1,' 88)	75 00
Louiseville and Railway Station Louiseville and Ste. Ursule Lourdes and Somerset	P. Lefebvre	1 1	12 6	12 do	99 00 220 00
Low and Maniwaki	W. Brooks	54	1 3	12 do	50 00 1,700 00
Low, Maniwaki & North Wakefield Luskville and Railway Station	F. Desbiens	54&11	6	12 do	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Maddington Falls and Ry. Station. Magog and Railway Station. Malmaison & Notre DamedeStanbgd	L. N. Allard	4	$\begin{array}{c c} 6 \\ 12 \\ 6 \end{array}$	12 do	80 00 100 00
Maniwaki and Montcerf Maniwaki and River Joseph	P. Paradis		1 1	12 do	
Mansonville and Railway Station Mansonville and Vale Perkins	W. B. Manson . C. H. Gordon	2½ 5½	6	12 do	
Mansonville R. Statn. & West Potton Maple Grove and Richardville Maple Grove, Ste. Sophie de Megan	M. L. Elkins J. Neagle	3	3 3	12 do	60 00 96 00
tic and Somerset	T. Dubois	20 61	3 2	12 do	250 00 75 00
Maple Leaf and Sawyerville Maple Ridge and Railway Station.	W. G. Planche G. Morrison	33	3 12	12 do	60 00 75 00
Maria and Maria East	J. Beijold	5	3	12 do	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
	G. D. Thompson	14	$\frac{5}{2}$ 3	9 do (to Dec. 31, '88). 3 do from do	112 50 30 00
Marsden and Notre Dame des Bois Marsden and Railway Station			$\frac{3}{12}$	12 do	

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	Period.	Amount.
					\$ ets.
Marsden and Whitwick	J.R. McDonald	. 3	2	12 months	36 00
Maryland and Railway Station	J. G. Bell	. 40 ft.	6	4 do (from Dec. 1, '88)	3 33
Mascouche and Mascouche Rapids. Mascouche and Railway Station	G. Alexander P. Robert	$\begin{array}{c c} . & 3\frac{1}{2} \\ . & 1\frac{1}{4} \end{array}$		12 do	75 00 79 00
Masham Mills and Wakefield Masson and Railway Station	P. Bertrand	7^4		12 do	50 00
Masson and Railway Station Mastigoche & St. Gabriel de Brandon	U. LaBrosse	9	1	Special service	$\frac{1}{36} \frac{40}{00}$
Matane and Railway Station Matane and Ste. Anne des Monts	W. Pelletier	32	6	12 do	
Matane and Ste. Anne des Monts Matapedia and Railway Station	J. Labrie	. 57	$\frac{1}{3}$	12 do	790 00 3 75
do do	E. Dorion	200 y s	$\frac{12}{12}$	1 do (to April 30, '88). 11 do from do	
do do Matapedia and Runnymede	J. Lawlor	. 12	1	12 do	70 00
Melbourne and New Rockland Melbourne and Richmond Station.	J. Largie	$\begin{bmatrix} 7\\2 \end{bmatrix}$	12	12 do 12 do	$250 00 \\ 100 00$
Melbourne and Upper Melbourne	N Coburn	9	3	12 do	100 00
Melbourne and Waterloo Metabechouan and St. Gédéon	S. Jamieson	. 33	3 & 6	12 do	$ \begin{array}{r} 500 \ 00 \\ 262 \ 50 \end{array} $
Melbourne and Waterloo Metabechouan and St. Gédéon Methot's Mills and Ste. Agathe	J. Fournier	. 8	6	3 do (to June 30, '88).	45 00
do do Methot's Mills and St. Flavien	L. Ratté	8 4	6 6	9 do from do . 3 do (to June 30, '88).	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
do do	L Ratté	. 4	6	9 do from do .	93 75
Mille Isles and St. Jérômedo do do	T. Campbell	$\begin{array}{c c} & 12 \\ & 12 \end{array}$	$\frac{2}{3}$	3 do (to June 30, '88). 9 do from do	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Millstream and Railway Station	J. P. Lavoie	. 10 yds	12	11 do 11 days (to Mar.	31 30
Minton and North Hatley				11, ³ 89	17 00
Mirabel and St. Hermas Station	A. Lamarche	$egin{array}{cccc} . & 2rac{1}{2} \ . & 1rac{1}{2} \end{array}$		1 do (to Aug. 31, '88).	52 00 3 00
do do	do	$1\frac{1}{2}$	6	7 do from do .	32 66
Mongenais, Ste. Justine de Newton and Railway Station	J. Marleau	. 3 & 13	6 & 12	11 do 15 dys. (from Apr.	
			1 .	16, '88)	180 16
Mont Carmel and Railway Station. Montebello and Railway Station	C. Major	1	4 6	12 do	65 00 40 00
Montfort and Morin Flats	M. Boulaire	. 6	2	12 do	52 00
Montmagny and Railway Station	C. Larcher		$\begin{array}{c c} 12 \\ 12 \end{array}$	12 do 12 do	
Montmorency Falls and Quebec	L. Lapointe	. 8	6	12 do	280 00
Montreal and Mount Royal Vale Montreal and Notre Dame de Grâce		4 3 3	$\frac{12}{12}$	7 do (from Sep. 1, '88) 5 do (to Aug. 31, '88).	$140 00 \\ 75 00$
Montreal and Outremont	B. T. Cooke			12 do	40 00
Montreal and Canadian Pacific Railway Station		4	60 & 96	$egin{array}{lll} egin{array}{lll} egin{arra$	2,165 85
Montreal Receiving Houses and					
Street Letter Boxes	H. Munier	21	49	12 do	3,978 82 1,000 00
Montreal and St. Gabriel de Mont-		i	10	10. 1	050.00
real		1	18	12 do	250 00
Maurice	J. Gervais	. 8	6	8 do (from Aug. 1,'88)	
Montreal and Sault au Récollet Montreal and Varennes	H. Dubois	7	6 6	12 do	
		1	10	15, '88)	277 17
Mont St. Nicholas and Ry. Station. Montreal and Wharf	C. A. Dumaine			1 do (from Mar. 1, '89) Season 1888	118 30
Moore's Station and Railway Station	P. C. Moore		12	12 months	12 00
Morehead and Railway Station Morin Flats and St. Adolphe de		. 1	12	12 do	10 00
Howard	H. Paquet	. 9	1	12 do	45 00
Mount Johnson and Versailles Murray Bay and St. Agnes	J. Sayard	$\frac{4}{9}$	$\begin{vmatrix} 6 \\ 3 \end{vmatrix}$	12 do	150 00 69 72
Murray Bay and St. Paul's Bay	A. Bouchard	. 30	6	12 do	1,170 00
Murray Bay and Tadousac	J. Gaudreault.	$\begin{array}{c c} & 42 \\ \hline & 3 \end{array}$	As rec	12 do Season 1888	660 00 160 00
Murray Bay River & St. Paul's Bay	A. Coté	. 37	6	6 months (to Sep. 30, '88)	365 00
Napierville and Stottville	F. Hetier	\cdot 7	1 6	12 do	140 00
	0	0			

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	Period.	Amount.
	The second secon				\$ ct
eigette and Ste. Flavie Station		$6\frac{1}{2}$		12 months	80 0
ew Armagh and St. Sylvester		$\frac{4\frac{7}{2}}{9}$	$\frac{2}{6}$	12 do	50 0
Tewbois and Scott Junction	T. Caldwell	3		12 do	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Tew Carlisle and Wharf Lew Glasgow and Railway Station.	F. Langlois	3 4 1 4	12	12 months	52 0
Tewport and Paspebiac	W. P. Ramier	32 35	6	12 do (less fine)	$\begin{array}{c} 1,076 & 0 \\ 1,289 & 2 \end{array}$
Sewport and Terce	J. Jessop, sr	1 39	Asreq	Season 1888	55 0
Tewport Point and Wharf Ticolet and St. Grégoire	do	1 2	Asreq	do	47 0
ficolet and St. Gregoire	J Page	8 8	$\frac{12}{6}$	12 months	$\begin{array}{c} 374 & 0 \\ 150 & 0 \end{array}$
formandin and St. Félicien	N. Picard	20	3	12 do	195 0
forth Georgetown and Ry. Station.	L. Turcot	1 2	6	12 do	40 0
Forth Hatley and Railway Station. Forth Nation Mills and Ry. Station		$3\frac{1}{2}$	6	12 do	$\begin{array}{c} 30 \ 0 \\ 100 \ 0 \end{array}$
orth Onslow and O'Connell		7	2	7 do 8 dys. (from Aug.	100 0
	W. D. 1 1			24, '88)	48 2
Forth Onslow and Quyon	O. Sweet	$\frac{7}{2}$	3	12 do	$\begin{array}{cccc} 100 & 0 \\ 50 & 0 \end{array}$
Torth Wakefield and Ottawa	R. Hastey	$26\frac{1}{2}$	6	12 do	509 6
orth Wakefield and Rupert	R. Joynt		2	12 do	80 0
Torton Creek and St. Rémi	do	$9\frac{1}{2}$	6 6	9 do (to Dec. 31, '88). 3 do from do	$\begin{array}{c c} & 187 & 5 \\ \hline & 74 & 5 \end{array}$
otre Dame des Anges & St. Ubalde		112	3	12 do	94 0
otre Dame de Rimouski & Ry. St'n		$\frac{1}{2}$	6	3 do (to June 30, '88).	10 0
do Jotre Dame du Laus and St. Gérard	A. Parent	2	6	9 do from do	30 0
de Montarville	B. Grenier	37	1	12 do	240 0
Jotre Dame du Portage and Rail-	A Nadana	-	1 0	10 4-	139 0
way Station	P. Caron	7	$\frac{6}{6}$	12 do	$\frac{139}{25} \frac{0}{0}$
rmstown and Railway Station	T. H. Paling	1 12	12	12 do	96 0
Otter Lake and Shawville	C. R. Morrison	24	$\frac{3}{2}$	12 do	275 0
tter Lake and Inormby	J. 11111	7	1 4	12 do	87 0
ainchaud and Somerset	J. O. Huard	4		12 do	75 0
apineauville and St. Amédée aspébiac and Wharf	P. D. Loisel	$7\frac{1}{3}$		12 do Season 1888	52 0 56 5
auline and St. Césaire	A. Garceau	5	2	4 months (to July 31, '88)	20 0
$\operatorname{erc\acute{e}}$ and $\operatorname{Wharf}\dots\dots\dots\dots\dots$	T. E. Flynn	1 2		Season 1888	55 5
ierreville and St. Elphège hilipsburg and St. Armand Rail-	J. DOIVIN	1	6	12 months	190 (
way Station	E. Best	2	12	12 do	245 (
ointe au Chêne and Ry. Station	T. Mathews	33 yds	12	12 do	30 (
ointe aux Orignaux & River Ouelle ointe aux Trembles and Quebec			$\frac{6}{6}$	12 do	50 6 598 6
te. aux Trembles & R. des Prairies	F. Roy	6	6	12 do	172
ointe Bleue and Roberval	L. E. Otis	5	3	12 do	85 (
ointe Claire and Railway Station.	A. Biron	1	$\frac{6}{12}$	12 do	38 9 80 0
ointe Gatineau and Rv. Station	T. Gagnon		12	12 do	120 (
ointe Sèche and St. Paschal		11	3	12 do	120 (
ont St. Peter and Wharf Ont de Maskinongé & Ry. Station			Asreq 12	Season 1888 12 months	50 (
ont de Maskinongé and St. Justin	E. M. Chapde-				
ont Rouge and Railway Station	laine	5	$\frac{6}{12}$	12 do	240 (50 (
do do	J. Denis	1	12	6 do from do	44 (
Ont Vian and Pont du Sault.	T. Bélanger.	Acho	6	12 do	48 (
'ortage du Fort and Ry. Station	D. M. Rattray	7 5	18 3	12 do	312 6
Port Daniel and Wharf Port Lewis and St. Anicet	S. Dupuis	5	3	12 months	74 (
Portneuf and Railway Station	E. Marcotte	1	12	12 do	100 (
uebec and Railway Stations	C. Hough	1 3	12&18	3 12 do	1,172

				and amount of the		
Quebec and St. Salvay A	Name of Route.	of ·		No. of Trips per Week.	Period.	Amount.
Quebec and St. Salvay A						\$ ets.
Quebec and St. Tite des Caps			1 27	6	19 months	
Quebec and St. Tite des Caps. J. L. Saucier. 11/40 00 44 6 12 do 41 140 00 Quebec and Stenecr Cove. A. Flanagan. 5 12 12 do 20 00 220 00 Quebec and Stenecr Cove. A. Flanagan. 5 12 12 do 12 20 00 120 00	Quebec, St. John Suburb and Street					/
Quebec and St. Tite des Caps J. Tremblay 33 6 12 do 1,140 00 Quebec and Spencer Cove A. Flanagan 5 128 24 Season 1888 1,659 37 Quebec and Stoneham J. Chanbesten 2 2 do 12 do 120 do Quinnville and Templeton J. Gahagan 62 1 12 do 16 12 do 40 00 Quyon and Railway Station W. Richardson 1 6 12 do 50 00 75 00 Randboro' and Sawyerville J. A. Armstrong 3 3 12 do 30 00 30 00 Randboro' and Sawyerville J. M. McDougal 20 3 12 do 30 00 30 00 Raydon and St. Ligueri P. O. Morin 9 6 6 do (to Sept. 30, 38). 99 50 Reedham and Robertson Station J. Savage 4 1 12 do 30 00 Richandon Estand Sylenam Place L. Ectourneau 1 2 12 do 30 00 Richandon Estand Sylenam Place L. Ectourneau 1 2 12 do 6 (from Jan. 1, 89) Ricards and St. Hernmeiegide R. Lavoie 1 2 12 do 6 (from Jan. 1, 89) Ricards and St. Felementegrid	Quebec and St. Sauveur de Quebec.	J. L. Saucier	1.4			
Quebec and Stoneham	Quebec and St. Tite des Caps	J. Tremblay	33			
Quienville and Templeton	Quebec and Wharf	C. Hough	1 3	12 & 24	Season 1888	1,659 37
Quyon and Railway Station. W. Richardson. 1 6 12 do 75 60 Radford and Shawyille. J. A. Armstrong 3 3 12 do 50 60 Ramdoro' and Sawyerville. L. Munn. 2 6 12 do 36 60 Rawdon and St. Liguori. P. O. Morin. 9 6 6 do 6 do 6 from do 73 50 Reedham and Robertson Stati. P. O. Morin. 9 6 6 do 6 from do 73 50 Reedham and Robertson Stati. P. O. Morin. 9 6 6 do 6 from do 73 50 Reedham and Robertson Stati. P. O. Morin. 9 6 6 do 6 from do 80 60 Ricards and St. Herménegilde. L. Letourneau. 1 2 12 do 80 60 Ricards and St. Herménegilde. L. Letourneau. 1 2 12 do 80 60 Ricards and St. Herménegilde. L. Letourneau. 1 2 12 do 80 60 Rigaud and St. Rédenham Place J. Grégoire. 15 6 12 do 87 60 Rigaud and St. Rédenham Place J. Grégoire. 15 6 12 do 87 60 Rigaud and St. Rédenham Place J. Grégoire. 15 6 12 do 87 60 Rimouski and Railway Station. P. Proulx. 9 2 3 do from do 87 60 Rimouski and Ste. Blandine. A. Prémont. 9 1 9 do (to Dec. 31, 88). 37 50 Richamond East and St. Gabriel. S. Murphy 20 yd 12 6 do (to Nov. 31, 88). 38 60 Rivère à Pierre and Railway Station. R. St. Orge. 120 yd 12 6 do (to Sept. 30, 88). 16 00 Rivère à Pierre and Railway Station. R. St. Orge. 120 yd 12 6 do (to Sept. 30, 88). 16 00 Rivère du Loup and Ry. Station. R. L. Rarchand L. St. Orge. 12 12 do (to Sept. 30, 88). 16 00 Rivère du Loup and Ry. Station. R. L. Rarchand L. T. Pinyer. 22 Asreq Season 1888. 66 0 Rivère Noire and Railway Station. R. E. Beauchemin 10 yds 12 12 do (to Sept. 30, 88). 66 0 Rivère Noire and Railway Station. R. E. Beauchemin 10 yds 12 12 do (to Sept. 30, 88). 66 0 Rivère Poire and Railway Station. R. E. Beauchemin 10 yds 12 12 do (to Sept. 30, 88). 66 0 Robertson Station and Sacré Cœur J. Vallière jr. 6 6 do (to Sept. 30, 88). 60 0 Rober	Quebec and Stoneham	J. Corrigan	17	2	12 months	
Radiford and Shawville	Quinnville and Templeton	J. Gahagan	$-6\frac{1}{2}$			
Rapides des Joachims and Rowanton A. McDougall. 20	Radford and Shawville	J. A. Armstrong	3	3	12 do	50 00
Rawdon and St. Liguori.	Rapides des Joachims and Rowanton	A. McDougall	20			
Reechtam and Robertson Station J. Savage. 4 1 12 do 30 00 Riceards and St. Herménégide L. Létourneau 1 2 12 do 80 00 Richmond East and St. Cyr. R. E. Dyson. 6 1 3 do (from Jan. 1, '89) 12 50 Richmond East and St. Cyr. R. E. Dyson. 6 1 3 do (from Jan. 1, '89) 12 50 Richmond East and St. Rédempteur. B. Lalonde. 6 1 3 12 do 375 60 Rimouski and Railway Station L. Lavoie. 5 12 12 do 10 60 Rimouski and Railway Station L. Lavoie. 5 12 12 do 10 60 Rimouski and Ste. Blandine A. Premont. 9 1 9 do (to Dec. 31, '88). 37 50 Riphon and Thurso Railway Station M. St. Pierre 18 6 8 do (to Nov. 31, '88). 200 00 Rivere à l'Ours and Tremblay J. B. Gaudin. 18 6 8 do (to Nov. 31, '88). 200 00 Rivere à l'Ours and Tremblay J. B. Gaudin. 18 6 8 do (to Nov. 31, '88). 200 00 River David and Railway Station D. Houde. 4 12 2 do 52 00 River David and Railway Station D. Houde. 4 12 2 do 52 00 Rivere Gilbert and River Gilbert Gold Mines. J. Turner. 79 4 48 12 do 761 28 Rivere Roire and Railway Station N. L. T. Pinyer. 2 2 4 4 12 2 do 6 0 Rivere Roire and Railway Station J. Turner. 79 4 48 12 do 761 28 Rivere Roire and Railway Station N. A. Et Bauchemin I Oyds 12 12 do 761 28 Rivere Roire and Railway Station J. J. L. Lachance. 3 4 4 12	Rawdon and St. Liguori	P. O. Morin	9		6 do (to Sept. 30, '88).	
Ricards and St. Herménégide. L. Létourneau. 1 2 12 do 30 00 Richmond East and St. Cyr. R. E. Dyson. 63 1 3 do (from Jan. 1, '89) 12 50 Richmond East and Stydenham Place J. Grégoire. 15 6 12 do 375 00 Rigand and St. Rédempteur. B. Lalonde. 63 312 do 375 00 Rigand and St. Rédempteur. B. Lalonde. 64 3 12 do 375 00 Rigand and St. Rédempteur. B. Lalonde. 64 3 12 do 375 00 Rimouski and Railway Station. L. Lavoie. 4 12 12 12 do 10 00 Rimouski and Railway Station. M. A. Prémont. 9 1 1 9 do (to Dec. 31, '88). 37 50 Rimouski and Railway Station. M. St. Pierre. 18 6 8 do (to Nov. 31, '88). 200 00 do do Go. J. S. Murphy. 120 yd 12 6 do (to Sept. 30, '88). 10 00 do do Go. J. S. Murphy. 120 yd 12 6 do (to Sept. 30, '88). 10 00 do Go. J. S. Murphy. 120 yd 12 6 do (to Sept. 30, '88). 10 00 do Givière du Loup and Edmunston. J. Turner. 79 6 12 do 300 00 Rivière du Loup and Railway Station. M. L. Marchand 14 48 12 do 300 00 Rivière Noire and Railway Station. A E Beauchemin 10 yds 12 do 6 do from do 10 00 Rivière Noire and Railway Station. N. A. Chire. 10 do 4 do Go. J. Guirion. 32 6 9 do from do 10 00 Rivière Noire and Railway Station. N. A. A. A. Talbot. 5 12 12 do 50 00 00 Rivière Noire and Railway Station. N. A. A. Rechens. 21 1 6 do from do 10 00 Rivière Ouelle and Railway Station. N. A. A. Rechens. 21 1 6 do from do 10 00 Rivière Ouelle and Railway Station. N. A. A. Talbot. 60 yds 12 12 do 50 00 00 Rock Forest and Railway Station. S. Simpson. 21 12 do 50 00 Rock Forest and Railway Station. S. Simpson. 21 12 do 50 00 Rock Forest and Railway Station. S. Simpson. 22 1 1 6 do from do 10 00 Rock Forest and Railway Station. S. Simpson. 21 12 do 50 00 Rock Forest and Railway Station. S. Simpson. 22 1 1 6 do from do 240 00 Rock Forest and Railway Station. S. Simpson. 24 12 2 do 50 00 Rock Forest and Railway Station. S. Simpson. 25 6 6 do (to Sept. 30, '88). 25 00 Rock Forest and Railway Station. S. Simpson. 25 6 6 do (to Sept. 30, '88). 36 6 Rock Forest and Rock Prime. S. Samere. 24 Asreq Season 1888. 50 00 Rock Forest and Rock Prim	Reedham and Robertson Station	J. Savage	4	1	12 do	30 00
Richmond East and St. Cyr R. E. Dyson. 63 1 3 do (from Jan. 1, '89) 12 50 Richmond East and Sydenham Place J. Grégoire. 15 6 12 do 84 00 Rigaud and St. Rédempteur. B. Lalonde. 63 3 12 do 84 00 Rimouski and Railway Station. L. Lavoie. 1 12 12 do 107 66 Rimouski and Railway Station. M. St. Pierre 18 6 8 do (to Dec. 31, '88). 37 50 do do do P. P. Proulx. 9 2 3 do from do 133 33 Rivière à Pierre and Railway Station. M. St. Pierre 18 6 8 do (to Nov. 31, '88). 200 00 do do G. Dalaire. 18 6 4 do from do 133 33 33 Rivière à Pierre and Railway Station L. St. Onge. 120 yd do do do J. S. Murphy 120 yd 12 6 do (to Sept. 30, '88). 10 00 Rivière à Pierre and Railway Station. Station and Railway Station. G. Houde. 5 12 12 do 52 00 River David and Railway Station. M. L. Marchand Rivière du Loup and Edmunston L. T. Pinyer. 2 Asreq Reson 1888 60 60 Rivière Aurona Rivière Gold Mines. J. L. Lachance. 3 1 4 12 do 3 3 months (to June 30, '88). 35 60 Rivière Noire and Railway Station. Rivière Ouelle and Railway Station. Rivière St. Marguerite and Tadousac L. Dechenes 21 1 6 do (to Sept. 30, '88). 35 60 Rivière Trois Pistoles and Railway Station. A. Talbot. 5 12 2 do 200 00 Rivière Trois Pistoles and Railway Station. A. Talbot. 5 12 2 do 200 00 Roberval and St. Prime. S. Maurice 10 3 3 do (to June 30, '88). 12 96 Robertson Station and Ray. Station. A. Talbot. 5 0 yds. 12 12 do 200 00 Roberval and St. Prime. S. Maurice 10 3 3 do (to June 30, '88). 12 95 Robertson Station and Ray. Station. A. Talbot. 5 0 yds. 12 12 do 200 00 Roberval and St. Prime. S. Maurice 10 3 3 do (to June 30, '88). 12 95 Robertson Station and Railway Station. J. Fradet. 10 6 9 do from do 200 00 Roberval and St. Prime. S. Maurice 10 6 6 6 11 do (from May 1, '88). 25 00 Roberval and St. Prime. S. Maurice 10 6 6 6 6 11 do (from May 1, '88). 25 00 Robertson and Railway Station. J. Baschelder. 12 12 do 200 00 Roberval and St. Prime. S. Maurice 10 6 6 6 6 6 6 1	Ricards and St. Herménégilde	L. Létourneau	1	2	12 do	30 00
Rigaud and St. Rédempteur. B. Lalonde. 63 3 12 do 84 00 81 mismouski and Railway Station L. Lavoie. 5 1 12 12 do 10 6 10 10 66 Rimouski and Railway Station. A. Prémont. 9 1 9 do (to Dec. 31, 88). 37 50 do do do G. P. Proulx. 9 2 3 do from do 15 00 do G. Dalaire. 18 6 8 do (to Nov. 31, 88). 200 00 do do G. Dalaire. 18 6 8 do (to Nov. 31, 88). 200 00 do do G. Dalaire. 18 6 8 do (to Nov. 31, 88). 200 00 do do G. Dalaire. 18 6 8 do (to Nov. 31, 88). 200 00 do do J. S. Murphy 120 yd 12 6 do (to Sept. 30, 88). 10 00 Rivière à Pierre and Railway Station L. St. Onge. 120 yd 12 6 do (to Sept. 30, 88). 10 00 Rivière aux Pins and St. Gabriel Station. F. Arnstrong. 63 2 12 do 52 00 River David and Railway Station. G. Houde. 5 12 12 do 52 00 Rivere du Loup and Edmunston. G. Houde. 5 12 12 do 52 00 Rivière du Loup and Ry. Station. M. L. Marchand Rivière du Loup and River Gilbert du Kivere du Loup and River Gilbert du Kivere du Loup and River Gilbert do do do J. Quirion. 35 6 6 9 do from do 10 00 Rivière Noire and Railway Station. Rivière Noire and Railway Station. Rivière Ouelle and Railway Station. Rivière Ouelle and Railway Station. Rivière St. Marguerite and Tadousac L. Dechenes. 21 1 6 do (to Sept. 30, 88). 35 60 Rivière Trois Pistoles and Railway Station. Rivière St. Marguerite and Tadousac L. Dechenes. 21 1 6 do (to Sept. 30, 88). 40 00 Rivière St. Marguerite and Tadousac L. Dechenes. 21 1 6 do (to Sept. 30, 88). 40 00 Rivière St. Marguerite and Tadousac L. Dechenes. 21 1 6 do (to Sept. 30, 88). 40 00 Robertson Station and Sacré Cœur de Marie. J. Vallière jr. 6 6 6 11 do (from May 1, 88). 12 83 Robertson Station and Railway Station. J. Brisson. 21 1 2 do	Richmond East and St. Cyr	R. E. Dyson	$6\frac{1}{2}$		3 do (from Jan. 1, '89)	
Rimouski and Ste. Blandine	Rigaud and St. Rédempteur	B. Lalonde	$6\frac{1}{2}$	3	12 do	84 00
Chipon and Thurso Railway Station M. St. Pierre 18	Rimouski and Railway Station Rimouski and Ste. Blandine	A. Prémont	92			
Co	do do	P. Proulx	9	2	3 do from do	15 00
Rivière à l'Ours and Tremblay J. B. Gaudin 18	do do	G. Dalaire	18	6	4 do from do	133 33
Station	Rivière à l'Ours and Tremblay	J. B. Gaudin	18 120 vd	$\frac{1}{12}$	12 do	
Station	do do	J. S. Murphy	120 yd	12		
Rivière du Loup and Ry. Station M. L. Marchand 11/4 48 12 do 761 28 Asreq Season 1888 60 60 60 60 60 60 60	Station	F. Armstrong				
Rivière du Loup and Ry. Station Rivière du Loup and Wharf L. T. Pinyer. 2½ As req Season 1888 60 00 60 00 C. T. Pinyer. 3½ 6 9 do from do 105 00 60 60 60 60 60 60 60	River David and Railway Station	O. Houde	793			
Cold Mines	Rivière du Loup and Rv. Station	M. L. Marchand	1	48	12 do	761 28
Cold Mines	Riviere du Loup and Whari	L. T. Pinyer	42			
Rivière Noire and St. Valère de Bulstrode	Gold Mines	J. L. Lachance	34		3 months (to June 30, '88).	
Strode	Rivière Noire and Railway Station.	A E Beauchemin	10 yds		12 do	
Column	strode	do				
Column					12 do	
Station	do do	J. Brisson			6 do from do	
Robertson Station and Sacré Cœur de Marie	Station.	J. G. Seton	1	12	12 do	50 00
Roberval and St. Prime. S. Maurice 10 3 3 do (to June 30, 88). 40 00 do do J. Fradet. 10 6 9 do from do 240 00 Robinson and Railway Station. L. Pope 1 12 12 do 60 00 00 00 00 00 00 0	Robertson Station and Sacré Cœur			1	11 do (from May 1, '88).	122 83
Column	Robertson Station and Ry. Station.	A. Talbot	60 yds	12	12 do	25 00
Robinson and Railway Station	do do	J. Fradet	10	6	9 do from do	240 00
Rock Forest and Suffield	Robinson and Railway Station	L. Pope	1 2	12	12 do	60 00
Rougemont and Railway Station. J. Bachelder. 1	·	•	1	1	5, '88)	
Roxton Past and Roxton Falls. R. Dalphe 3 2 11 do (from May 1, 88). 36 00 00 00 00 00 00 00	Rougement and Railway Station	J. Bachelder	1	12	12 do	52 00
Russeltown and Vicaré	Roxton East and Roxton Falls,	E. Daipne	0		11 do (from May 1, '88).	
Ste. Adèle and Ste. Agathe. R. Charbonneau. 12 6 12 months 230 00 Ste. Adèle and St. Jérôme. E. Beauchamp. 17 6 9 do (to Dec. 31, '88). 337 50 do G. Valiquette. 17 6 3 do from do 112 50	Russeltown and Vicars	C. Struthers	2	6	6 do (to Sept. 30, '88).	30 00
Ste. Adèle and St. Jérôme. E. Beauchamp. 17 6 9 do (to Dec. 31, '88). 337 50 do do G. Valiquette. 17 6 3 do from do 112 50	Ste. Adèle and Ste. Agathe	R. Charbonneau.	12	6	12 months	
	Ste. Adèle and St. Jérôme	E. Beauchamp	17	6	9 do (to Dec. 31, '88).	
	do do		~	1 0	, b do from do	112 00

Name of Route.	Name of	Distance in Miles.	of Trips r Week.			Period.	Amount.
	Contractor.	Dis	No. of v				
				· —			
Ct. Admin. and Watton	E V Charland	0	9	10		41.	\$ ets.
St. Adrien and Wotton St. Agapit and Railway Station	J. Paquet	8	$\frac{3}{12}$	12		ths	90 00 75 00
Ste. Agathe and St. Jovite	J. Robert		3	12	do	,	450 00
Ste. Agnès de Dundee and Railway Station	T. Rowley	1 3	6	12	do	· · · · · · · · · · · · · · · · · · ·	48 00
St. Aimé and St. Hyacinthe	T. Mathieu	$+23\frac{1}{2}$		3	do	(to June 30, '88).	125 00
do do St. Aimé and Yamaska	H. Salvas	$23\frac{1}{2}$		9	do	from do	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
St. Alban and Railway Station	A. Frenette	5	6	12			104 00
St. Alexandre de Kamouraska and Railway Station	R. Fortin.	400 vd	12	12	do		40 00
St. Alexandre d'Iberville and Rail-							
way Station St. Alexandre and St. Eleuthère	D. Gagnon	$\frac{1}{24}$	$\frac{12}{1}$	$\begin{vmatrix} 12 \\ 6 \end{vmatrix}$	do	(to Sept. 30, '88).	$\frac{72\ 00}{48\ 00}$
do do	A. Rousseau	24	1	6	do	from do	46 00
St. Alexis des Monts and St. Paulin St. Alphonse and Ste. Béatrix		10	3 & 6	12 12	do		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
St. Alphonse and St. Côme		12	2	12	do		112 00
St. Anaclet and Railway Station	O. Couture	$\frac{2\frac{1}{2}}{2}$	6	6	do	(to Sept. 30, '88).	25 00
do do St. André and Railway Station	C. Rousseau E. Michaud	$rac{2rac{1}{2}}{4rac{1}{2}}$	8	$\frac{6}{12}$	do	from do	$\begin{array}{ccc} 23 & 50 \\ 200 & 00 \end{array}$
Ste. Angèle de Laval and Railway		-	10	10			94.00
Station	M. B. Desilets	1 4	12	12	do		24 00
way Station	B. Loiselle	1/2	12	12	do		48 00
St. Anicet and White's Station Ste. Anne de Bellevue and Railway	E. Choquette	10	6	12	do		242 00
Station	A. St. Denis	1	6	2	do	29 days (to Sept.	
Ste. Anne de la Pérade and Railway Station		1/2	12	12	do	30, '88)	$\begin{array}{ccc} 7 & 70 \\ 105 & 00 \end{array}$
Ste. Anne de la Pérade and St.		1					
Prosper. Ste. Anne la Pocatière and Railway	J. Cossette	7	6	12	do		108 00
Station	J. O. Ouellet	1	12	12	do		211 25
Ste. Anne la Pocatière and St. Onésime	C. Dubé	6	3	9	do	(to Dec. 31, '88).	44 25
do do	C. Ouellet	6	3	3	do	from do	15 75
Ste. Anne des Plaines and Railway Station	D. D. Gaudette.	1 6	12	12	do		32 00
Ste. Anne de Sorel and Sorel	E. Latraverse	3	6	12	do		75 00
St. Anselme and Railway Station St. Anselme and Ste. Claire		$\frac{1}{7}$	$\frac{12}{6}$	$\frac{12}{12}$			$ \begin{array}{r} 80 & 00 \\ 175 & 00 \end{array} $
St. Antoine and St. Appollinaire	J. H. Lambert.	5	3	12			75 00
St. Antoine and St. Denis	A. Lacroix	1		12			70 00
St. Arsène and Viger St. Athanase and Railway Station.	P. Savaria	6		12	do	(to Aug. 31, '88).	$150 00 \\ 41 67$
do do	H. Mailhot	3	24	7	do	from do	58 33
St. Aubert and Railway Station St. Aubert and St. Pamphile	C. Dubé	$\frac{1\frac{1}{2}}{31}$	$\frac{6}{2}$	$\begin{vmatrix} 12 \\ 12 \end{vmatrix}$	do		59 00 180 00
St. Augustin and Railway Station	H. Rochon	14		12	do		56 00
St. Augustin Railway Station and Ste. Monique	D. Léonard	2	6	12	do		78 00
Ste. Barbe and St. Stanislas de	D. Leonard			12	ao		70 00
Kostka			2 & 3	12	do		58 11
St. Barnabé and St. Elie St. Barnabé and Yamachiche		$\frac{9}{12}$	6	$\frac{12}{12}$	do do		$159 00 \\ 193 00$
St. Barthélemi and Railway Station	J. B. Joinville	$1\frac{1}{2}$	12	12	do		90 00
St. Bazile and Railway Station St. Bazile le Grand and Ry. Station		$\frac{2\frac{1}{2}}{\frac{1}{1+}}$	6	$\begin{vmatrix} 12 \\ 12 \end{vmatrix}$	do do		80 00 40 00
St. Bazile Station and Ry. Station.	C. A. Delage	120 yd	6	12	do		12 00
St. Bonaventure and St. Guillaume	J. Lavallée	$7\frac{1}{2}$	3	10	do	(from June 1, '88)	72 50
Ste. Brigide and Railway Station.	J. Donnelly	3	6	12	do		110 00
Ste. Brigitte des Saults and Ste.				1			
Monique	H. St. Pierre 6	13 3	3	12	do		150 00
	0,	,					

			1				
	•	in	No. of Trips per Week.				
Name of Route.	Name of	Distance Miles.	f T We			Period,	Amount.
Name of Route.	Contractor.	ista	o.o			i eriott.	Amount.
		A	Za				
							\$ cts.
St. Bruno and Ste. Julie de Ver-		1		1			\$ 000£
chères	A. Hébert	5	6	12		ths	140 00
St. Bruno and St. Paschal St. Camille and Sherbrooke	Z. Manseau	7 26	1	$\frac{12}{12}$	do		77 00
St. Casimir and Railway Station	L. Martin	41/2	12	12	do		216 00
St. Casimir and St. Ubalde	J. Soular	11	3	12	do	• • • • • • • • • • • • • • • • • • • •	145 00
Ste. Catherine and Railway Station St. Célestin and Railway Station		1 11	6	$\frac{12}{12}$	do		70 00 60 00
St. Césaire and Railway Station	F. Garceau	1 1	12	12	do		50 00
St. Charles and Railway Station	E. Bilodeau	207	6	12	do	• • • • • • • • • • • • • • • • • • • •	25 00
St. Charles and St. Marc Ste. Claire and St. Malachie	H. Desjardins	$\frac{1\frac{1}{4}}{10}$	7 6	$\frac{12}{12}$	do		60 00· 190 00
St. Clément and St. Eloi	H. Aubert	12	3	12	do		98 00
St. Clément and St. Eloi	P. Lavigne	18	6	12	do		214 00
St. Columbin and Ste. Scholastique	M. Phelan	9	$\frac{6}{12}$	$\frac{12}{12}$	do		325 50 24 48
St. Constant and Railway Station Ste. Cunégonde and Railway Station	G. N. Ducharme	11	24	12	do		100 00
St. Cuthbert and Railway Station		3	6	6		12 days (broken	
St Cuthbert Station and Pailway						period)	36 81
St. Cuthbert Station and Railway Station	J. Marchand	300 vd	12	12	do		12 00
St. Cyr and Richmond East	R. E. Dyson	$6\frac{1}{5}$	1	9	do	(to Dec. 31, '88)	37 50
St. Cyrille and Railway Station	J. B. Cloutier	75		9	do	(from July 1, '88)	78 00
St. Damase and St. Hyacinthe St. Damase de Rimouski and Rail-	J. vigneux	7½	6	12	do		230 00
way Station	A. Langlois	7	3	12	do		80 00
St. Damien de Brandon and St.				10	,		100.00
Gabriel de Brandon St. Denis and Railway Station	L. Peltier	6 4		$\frac{12}{12}$	do		190 00- 140 00
St. Didace and St. Norbert	E. Lauzon	163		12	do		400 90
St. Dominique and St. Hyacinthe	J. Vigneau	7	6	12	do		200 00-
St. Dominique des Cedres and Rail-	S. Trottier	2	3	12	do		36 00
way Station St. Donat de Montcalm and St.	S. Howel	1 -		14	ao		30 00
Théodore de Chertsey	W. Aubin	27		12	do	.,	135 00
St. Edward and St. Michel St. Eloi and Railway Station		$\frac{4\frac{1}{2}}{3}$	6	12 12	do		118 00 100 00
Ste. Emelie de l'Energie and St.			,	12	uo		100 00
Jean de Matha	G. Clermont	12	2	9	do	(from July 1, '88)	142 50
Ste. Emélie de l'Energie and St.	A. Basinais	33	2	9	do	do	300 00.
Michel des Saints		90	4	19	uo	uo	300 00.
Hélène de Bagot	N. Bilette	7	6	12	do		145 00
St. Etienne du Saguenay and Tadou-	T1 D D1-:	10	9	10	d'a		234 00
Ste. Eulalie and Railway Station	H. P. Blair	4	$\frac{2}{6}$	12 12	do		102 50
St. Eustache and Railway Station.	J. M. Goulet		6	12	do		45 00
St. Eustache and St. Joseph du		}		10	,		150.00
St. Evariste de Forsyth and Rail-	J. B. Laurin	11	3	12	do		150 00
way Station	F. St. Pierre	26	6	12	do		524 72
St. Evariste de Forsyth and St.	D D II	_		10	,		100.00
HonoréSt. Fabien and Railway Station	R. Bellegarde	1		$\begin{array}{c} 12 \\ 12 \end{array}$	do do		$100 00 \\ 48 00$
Ste. Famille and St. Pierre d'Or-	o. D Anjou	, .	12	12	uo		40 00
léans	A. Maranda	8	3	12	do		120 00
St. Félicien and St. Prime		$\begin{array}{ccc} & 9 \\ \hline & 5 \end{array}$	$\frac{3}{2}$	12	do	(to Doc 21 200)	118 00
St. Félix de Valois and Railway	O. Perreault	9	2	9	do	(to Dec. 31, '88)	45 00
Station	S. Tessier	13	6	12	do		480 00
St. Félix de Valois and St. Jean de	F I come and	0	C	10	da		900.00
MathaSte. Flavie and Railway Station	E. Lessard P. Chouinard	8 3	$\frac{6}{12}$	$\frac{12}{12}$	do		$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
St. François de Salles and Terre-							
bonne	C. Gascon	3	6	12	do		40 00
	64	ŧ					

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	t feet of debug and debug	Period.	Amount.
						\$ ets.
St. François, Montmagny, and Rail-						
way Station	E. C. Boulet	$1\frac{1}{2}$. 6	12 mor	nths	72 00
and Windsor Mills	J. Levesque	4	2 & 3	12 do		87 50
St. François-Xavier de Viger and Viger	J. Plourde	6	3	9 do	(to Dec. 31, '88).	49 50
do do	P. Dionne	6	3	3 do	from do	16 50
St. Fredéric and Railway Station St. Frédéric and St. Sévérin de		$\frac{2}{2}$	6	12 do		100 00
Beaurivage	F. H. Plante	6	3	12 do		100 00
St. Gabriel Station and Railway Station	A. W. Landrigan	10 yds	6	12 do		16 00
Ste. Geneviève and Railway Station	A. Legault	3	6	12 do		130 00
Ste. Geneviève de Batiscan and Railway Station	A. Lacourcière	4	12	12 do		149 00
Ste. Geneviève de Batiscan and St. Stanislas		8	6	12 do		145 00
St. George East and St. Prosper de		. 0	. 0			
Dorchester		11	1	12 do		54 01
way Station	E. Paré	1	12	12 do		60 00
St. Gervais and Railway Station St. Gervais and St. Lazare			6			56 00 179 00
St. Gervais and St. Nérée	J. Goulet	9	3	12 do		75 00
St. Guillaume and Railway Station. St. Guillaume and St. Pie de Guire.			$\frac{12}{3}$			100 00 140 00
Ste. Hélène and Railway Station	J. B. Bérubé	1 1	12	12 do		28 00
Ste. Hénédine and Railway Station St. Henri and Railway Station	J. Mercier T. Couet	1 1				50 00 70 00
St. Henri and St. Isidore	A. Samson	10	6	12 do		152 00
St. Henri and St. Lambert St. Henri de Montréal and Railway		10	6	12 do		199 00.
Station	A. J. Bissonnette	10	24	12 do		90 00
St. Henri Station and Ry. Station. St. Hermas and Railway Station	P. E. Clairoux	4	$\frac{12}{6}$	$\begin{array}{c c} 12 & do \\ 12 & do \end{array}$		75 00 160 00
St. Hilaire Station and Ry. Station.	F. Martin	100 yd	36	12 do		100 00
St. Hilaire Station and St. Jean Baptiste de Rouville	L. G. E. Goulet.	5	6	12 do		156 00
St. Hilaire Station and Sorel	J. B. Faneut	33	6			1,096 00 70 00
St. Hubert and Railway Station St. Hugues and St. Hyacinthe	E. Phaneuf	14	$\frac{7}{6}$	12 do 6 do	(to Sept. 30, '88).	262 50
	A. Guertin	14	6 6	6 do	from do	247 50 46 00
do do	T. Forcier	7	6	9 do	from do	134 25
St. Isidore and Railway Station	A. Trudeau J. Primeau	3	$\begin{array}{c} 12 \\ 12 \end{array}$		(to June 30, '88). from do	18 00 54 00
St. Isidore Junction and Ry. Station St. Janvier and Railway Station	F. Baillargeon	17 yds	12	12 do		16 00
St. Janvier and Railway Station St. Jean de Dieu and Trois Pistoles	J. Jérôme	14	$\frac{12}{3}$	$\begin{array}{c c} 12 & dc \\ 12 & dc \end{array}$		$\frac{40\ 00}{188\ 00}$
St. Jean de Matha and St. Michel						
des Saints St. Jean Port Joli and Ry. Station.	G. Poitras	45	$\frac{2}{12}$		(to June 30, '88).	54 75 160 00
St. Jérôme and Railway Station	E. Marchand	1	12	12 de		52 00
St. Jérôme and Ste. Thérèse St. Joachim and Warden	J. Bachand	7	6 6	12 dc		300 00 168 00
St. John's and Railway Stations	W. Moore	1 3 & 3	12&2	4 12 dc		288 17
St. John's and St. Luc	A. M. White	81	3 3	12 do		80 00 108 00
St. Joseph de Sorel and Sorel	A. Bouvier			12 de		. 48 00
St. Louis de Gonzague and Railway Station	H. Laberge	1	12	9 do	(from July 1, '88)	56 25
St. Louis de Gonzague and St. Tim-				1		4 50
othé Station		13	12	12 mor	l trip	50 00
Ste. Luce and Railway Station	I. St. Laurent	\downarrow 2	12	12 do	• • • • • • • • • • • • • • • • • • • •	112 72
	6	Э				

		in	rips ek.		1	
Name of Route.	Name of	ance es.	of Th Wee		Period.	Amount.
	Contractor.	Distance Miles.	No. of Trips per Week.			
				·		\$ ets.
Ste. Madeleine and Railway Station	J. Rainville	$\frac{1}{6}$	12	12 mor	nths	24 00
St. Malachie and Standon	N. Hebert	13	6	12 do		176 00
Station	M. Bessette D. Rochon	$15^{\frac{1}{2}}$	12	12 do 12 do		49 00 540 00
Ste. Martine and Railway Station Ste. Martine Railway Station and	G. Marchand	3	12			70 00
St. UrbainSt. Mathias and Village Richelieu.	Z. Bergevin	$\frac{4\frac{1}{2}}{3\frac{1}{3}}$	6	12 do 12 do		130 00 140 00
St. Mathieu and St. Simon	A. D'Anjou	3	3	12 do		79 00
St. Moïse and Railway Station	J. Smith	$\frac{2^{1}}{2}$	3	12 do		90 00
St. Moïse Station and Ry. Station. St. Narcisse and Trois Rivières	J. Vaillancourt.	60yds.	$\frac{12}{6}$	12 do 9 do		24 00 330 00
do do	U. Marinville	19	6	3 do	from do	88 25
St. Norbert and Railway Station St. Ours and St. Roch de Richelieu.		$\frac{9}{\frac{1}{2}}$	6	12 do 12 do		290 00 25 00
St. Pacôme and Railway Station		$1\frac{2}{3}$	12	12 do		112 00
St. Patrick and Railway Station St. Paul du Buton and St. Pierre	T. C. Picard	4	12	3 do	11 dys. (to Sept. 15, '88)	135 00
Montmagny	A. B. Cloutier	17 26	3 6	12 do 12 do		190 00 1,248 00
St. Paul's Bay and St. Urbain		9	3		(from July 1, '88)	124 89
St. Paul's Bay and Wharf St. Philippe de Laprairie and Rail-	C. Bouchard	3	Asreq	Season	1888	316 00
way Station. St. Phillippe de Néry and Railway	F. C. Larose	15	1	1	nths	47 00
Station do St. Phillippe Railway Station and	F. Dechêne	$9^{\frac{2}{8}}$	12 6	12 do 9 do		40 00 210 00
Stonefield. Ste. Philomène and Railway Station	R. C. Chambers.	$\frac{9}{2\frac{1}{2}}$	6 6	3 do 12 do	from do	$\begin{array}{c} 70 \ 00 \\ 145 \ 00 \end{array}$
St. Pierre les Becquets and Ste. Sophie de Lévrard	D. Fournier	12	3	12 do		125 00
St. Pierre Montmagny and Railway Station		2	12	12 do		95 00
Ste. Placide and St. Scholastique	A. Gratton	$13\frac{1}{2}$	6	12 do		300 00
St. Pie and Railway Station	M. Drolette	4	$\begin{array}{c} 12 \\ 12 \end{array}$	12 do		38 00 52 00
St. Polycarpe and Railway Station St. Polycarpe and St. Télesphore	do	$+$ $5^{\overline{2}}$	6	12 do		180 00
St. Raphaël and Railway Station St. Raymond and Railway Station.	P. Gauthier	6	6	12 do		72 00
St. Raymond and Railway Station. St. Régis and Cornwall	J. Isaac	$6^{\frac{1}{2}}$	$\frac{12}{2}$	12 do 9 do		$\frac{40}{45} \frac{00}{00}$
do do St. Rémi and Railway Station St. Rémi de Tingwick and Waywick	J. Angus	6	2	3 do	from do	15 00
St. Rémi and Railway Station	J. B. Boyer	$13\frac{\frac{1}{2}}{3}$	$\frac{12}{6}$	3 do 12 do		$\begin{array}{r} 24 & 50 \\ 396 & 00 \end{array}$
St. Robert and Railway Station	L. Poirier	100	6	12 do		100 00
Ste. Rose and Railway Station	A. E Léonard	45	12	12 do		72 00
St. Samuel de Gayhurst and Valletort	L. Tanguay	8	2	12 do		50 00
St. Sauveur de Québec and Street Letter Boxes	J. L. Saucier		24	12 do		196 00
Ste. Scholastique and Ry. Station St. Sebastien and Venice	A. Gratton	3 5	12	12 do		40 00
St. Simon and Railway Station	J. B. Martin	$\frac{3\frac{1}{2}}{1}$	12	12 do 12 do		48 00 48 00
Ste. Sophie de Lacorne and Railway Station	M. Levesque	1 5	12	12 do		48 00
field	E. Cardinal	9		12 do		250 00
Ste. Thècle and Ste. Tite	F. Boutet	9 6	3&6	12 do 12 do		110 82 78 00
Ste. Théodosie and Verchères Ste. Thérèse and Railway Station		2 5	24	12 do		80 00
St. Timothée and Railway Station.		$1\frac{1}{4}$	12	3 do	11 dys. (from Dec.	19.70
St. Tite and Railway Station	G. Lahaie	6	6	12 do	21, '88)	13 70 139 00
St. Valentin and Stottville	F. Hetier	3	6	12 do		72 00
St. Valier and Railway Station	A. Belanger	3	20	3 do	(to June 30, '88).	24 00

Name of Route.	Name of Contractor.	Distance in in Miles.	No. of Trips per Week.		Period.	Amount.
						\$ ets
St. Walion and Dailway Station	T Comiyoon	3	6	0 mor	the (fuery Tester 1 200)	60 00
St. Valier and Railway Station Ste. Victoire and Sorel	H. Paulbus	9	3		ths(fromJuly 1, '88)	140 00
St. Vincent de Paul and Ry. Station	C. E. Germain	1 2	12	12 do		47 98
Savage's Mills and Railway Station	H. T. Tamlin	60 vds	$\frac{6}{12}$			48 00 18 00
Sayabec and Railway Station Scott Junction and Railway Station	G. Garon	60 yds	12		• • • • • • • • • • • • • • • • • •	50 00
Scotstown and Kallway Station	R. B. Scott	4	12			40 00
Scotstown, La Patrie and West Ditton.	J B Brousseau	9&3	3&6	12 -do		180 00
Shawenegan and Three Rivers	J. B. Lapolice	21	6	12 do		390 00
Shawenegan and Three Rivers Shawville and Railway Station	W. McGuire	1 2	12	12 do		75 00
Sheffington and West Shefford Railway Station.	A. Potvin	4	6	4 do	5 dys. (to Aug. 5,	
·				1	'88)	31 30
do do	do	$\frac{2\frac{1}{2}}{2}$	6	4 do	26 dys. (to Dec.)	36 20
do do	J. Harris	2&1	6&12	3 do	from do	25 00
Sherbrooke and Post Office, Exhibi-						
tion Building	R. A Biron	· · · · · · i	26	Specia	trips	3 00
Sherorooke and Kanway Station	J. J. FOSS	3	36	12 1110	nths, (and extra	200 33
Sherbrooke and Stoke Centre		$9\frac{1}{2}$	2	12 do		104 00
Sherbrooke, Sherbrooke East and Street Letter Boxes	R A Rivon		1887	12 do		350 00
Sherrington and Railway Station	B. Vautrin	24	1006			100 00
Sillery Cove and Spencer Cove	C. Levier	11	6	12 do		42 00
Sillery Cove and Spencer Cove Smith's Mills and Railway Station. Sorel and Railway Station	W. T. Knight	1812	$\frac{12}{12}$			$16 00 \\ 120 00$
00 00	of. Lavanee		12		l trips	2 50
South Durham and Valcourt	T. A. Fee	15	3	12 mor	nths	187 20
South Ham and Railway Station	LA Vallóo	l O.L	$\frac{6}{36}$	12 do 12 do		300 00 150 00
South Quebec and Railway Station. South Stukely and Railway Station.	L. H. Knowlton.	200 yu	6	12 do		48 17
Spring Hill and Kallway Station	M. A. McLean.	1 4	12	9 do	(to Dec. 31, '88).	30 00
do do Spring Hill and Stornoway	D. J. Morrison.	95	12 6	3 do	from do	15 00 300 00
Stanfold and Railway Station	P. Nadeau	24 yds	12		ions	25 00
Stanfold and Railway Station Stanstead Junction and Ry. Station	J. T. Jenkins	60 yds	12			30 00
Staynerville and Railway Station Stoneham and Tewkesbury	J. M. Dorion	240 vd	12	12 do		$\frac{12}{50} \frac{00}{00}$
Stornoway and Tolsta	A. Morrison	$\frac{7\frac{1}{2}}{4}$	1 - 2	12 do		40 00
Stornoway and Tolsta Suffield and Railway Station Sutton and Railway Station	P. Fitzpatrick	喜		7 do	4 d's (to Nov. 4, '88)	11 90
Sutton and Railway Station Sutton Junction and Ry. Station	K. A. Shepard	10				60 00 30 00
Sweetsburg and Railway Station	G. T. Batchelder	1 1 3 4	12			64 00
Todousae and Wharf	P Maronia	1	Agmag	Soomer	1000	40.00
Tadousac and Wharf Terrebonne and Railway Station	E. Brière	4	As req	12 mor	1888	46 80 80 00
Thetford Mines and Ry. Station	S. Blondeau	150 yd	12	12 do		30 00
Three Rivers and Railway Station. Three Rivers and Street Letter	H. C. Godin	$1\frac{1}{2}$	31 & 37	12 do	(and extra trips).	444 36
Boxes	J. P. Marineau.		18	12 do		300 00
Boxes	H. Sigman	15	3	12 do		160 00
Trahan's Mills and Weedon Station Tring Station and Railway Station.	A. Trahan	$1\frac{1}{4}$ 10 yds		12 do 12 do		75 00 40 00
Trois Pistoles and Railway Station.		10 yus	12	12 do		40 00
do do	do	1	12	3 do	11 days (to Sept.	11 00
Trois Saumons and Railway Station	B. Gaumond	$_2$	6	12 do	15, 1888)	$\frac{11}{68} \frac{33}{00}$
Valcartier and Railway Station	J. McBain	6		12 do	(4. Feb. 90 200)	185 00
Valleyfield and Railway Station do do	L. Leduc	3 1 1	$\begin{array}{c} 24 \\ 24 \end{array}$	11 do 1 do	(to Feb. 28, '89). from do	137 50 4 08
do Street Letter Boxes	D. Dion		12	12 do		72 00
Valois and Railway Station	P. G. Valois	180 yd	12	12 do		50 00

Name of Route.	Name of . Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amoun	t.
Village Richelieu and Ry. Station. Vincennes and Railway Station Vinton and Railway Station Walker's Cutting and Ry. Station Warden and Railway Station Warwick East and Railway Station	W. L. Forget. T. Lacombe. T. Foisy. J. B. Sirois. N. D. D. Bessette M. Dessureault W. Gilchrist. R. D. Pépin A. Berry P. Johnson E. Martel J. E. Coté N. Tanguay N. Scott O. Lepêtre M. Leonard. R. Blais	300 yd 30 yds 30 yds 5 1 4 3 1 120 yd 46 rds 180 yd 180 yd 2 60 yds	12 12 12 12 12 12 12 6 6 6 6 24 6 6 12 12 12 12 12 12 12 12 12 12 12 12 12	6 do 12 do 13 do 14 do 15 do 1	(to April 30, '88).	32 36 20 13 202 48 150 78 12 30 13 4 137 156 1 1 50 29 32	00 00 33 50 00 00 00 00 50 50
Yamaska East and Ry, Station	L. Léveillé	180 yd	12	12 do	Total		80

W. H. SMITHSON,

Accountant.

WILLIAM WHITE,

Deputy Postmaster-General.

DETAIL of all payments for Mail Transportation in Quebec, made within the Year ended 30th June, 1889.

Amount.	\$ cts. 4,500 00 226 00 226 00 226 00 1,500 00 1,73 00 1,13 00 4,041 66 2,500 00 1,200 00 1,200 00 1,366 66 35 25 828,747 41.
Period.	As required. Season 1888. 12
No. of Trips per Week.	
Distance in Miles.	235 44 44 44 44 44 44 44 44 44 44 44 44 44
Name of Contractor.	Richelieu and Ontario Navigation Co. J. Delisle. G. Gauthier Fraser & Holliday B. Adams. J. B. Futvoye Richelieu and Ontario Navigation Co. (Quebec and Levis Ferry Co. (Quebec and Levis Ferry Co. A. E. Joncas. J. Holliday Pickford & Black, Agents. Pickford & Black, Agents. Richelieu and Ontario Navigation Co. S. Intercolonial Railway. Canadian Pacific Ry. and Steamship Co.
Name of Route.	Bagotville, Chicoutimi and Quebec. Carillon and Lachine. Caughnawaga and Lachine. Coteau Station and Valleyfield. Gauthier. Gauthier. Fraser & Holliday Garthier. Fraser & Holliday Garthier. Fraser & Holliday Garthier. Gauthier. Fraser & Holliday Garthier. Fraser & Holliday Gauthier. Gauthier. Fraser & Holliday Gauthier. Fraser & Holliday Gauthier. Gauthier

N.B.—For Special Mail Subsidies and Steamship Subventions, see page 9.

W. H. Smithson,
Accountant.

WILLIAM WHITE, Deputy Postmaster-General.

WILLIAM WHITE,
Deputy Postmaster-General.

DETAIL of all payments for Mail Transportation in Quebec, made within the Year ended 30th June, 1889. CONVEYANCE OF MAILS BY RAILWAYS.

Name of Railway.	Distance in Miles.	Number of Trips per Week.	Period.	Amount.
Boston and Maine Railway. Canada Atlantic Railway (within Quebec). Canadian Pacific Railway (within Quebec)* Central Vermont Railway. Grand Trunk Railway (within Quebec)	35 53 765 107 & 68 451	With varying frequency over different sections of the line. 6 & 12 12 12 12 12 12 12 12 12 12 12 12 12	12 do (to 31st March, 1889)	\$ cts. 1,965 60 1,421 48 42,410 07 4,902 08 67,720 12
oGrand Trunk Railway (within Quebec). OGreat Northern Railway Intercolonlal Railway (within Quebec). International Railway L'Assomption Railway Montreal and Sorel Railway Pontriac and Pacific Junction Railway Quebec Central Railway Quebec and Lake St. John Railway.	303 303 69 45 45 143 177	With varying frequency over different sections of the line.	Special trips with British Mails 12 months (to 31st March, 1889) 15 do (to 30th June, 1889, & arrears) 16 do (to 31st March, 1889) 17 do (to 31st March, 1889) 18 do (to 31st March, 1889) 19 do (to 31st March, 1889) 11 do (to 31st March, 1889) 12 do (to 31st March, 1889) 13 do (to 31st March, 1889) 14 do (to 31st March, 1889) 15 do (to 31st March, 1889)	4, 212 00 149 76 52, 267 50 861 12 208 33 453 60 2, 125 16 7, 138 56 5, 627 85 8191, 463 23

* This includes the service between St. Polycarpe and Smith's Falls.

W. H. Smithson,
Accountant.

Detail of all payments for making and repairing Mail Bags, Mail Locks, &c., in Quebec, made within the Year ended 30th June, 1889.

Tradesmen's Names.	Particulars of Disbursements.	Amount.
R. S. Montgomery. E. Chanteloup. Smith & Egge Manufacturing Co. Miller Lock Company. G. Bailey. Pritchard & Andrews. P. O'Donoghue. Postmaster, Bersimis. P. O'Donoghue.	Brass mail locks do Mail bag locks and keys do do do do Repairing brass mail locks do	\$ cts. 1,872 12 806 74 335 75 17 50 15 00 124 50 89 27 3 90 6 25 1,708 81 1 00 \$4,980 84

WILLIAM WHITE,

Deputy Postmaster-General.

W. H. SMITHSON,

Accountant.

PROVINCE OF NOVA SCOTIA.

Detail of all payments for Mail Transportation in Nova Scotia, made within the year ended 30th June, 1889.

Name of Route. Name of Route. Section						
Abercrombie and New Glasgow R. Dunbar 5 2 12 months 68 00 Acadia Mines and Bass River. J. W. Davison 11 3 12 do 60 43 197 48 Acadia Mines and Londonderry Stn J. W. Brigny 22 24 4 9 do (to Dec. 31, 88) 197 48 Acdia Mines and Keppoch D. Campbell 7 1 12 do 60 43 75 Adiocate Harbor and Apple River. J. W. Ward 10 6 12 do 97 00 Afton and Bayfield Cand Ry, Station M. Connor. \$ 12 12 do 97 00 Afton and Bayfield Road Ry, Station M. Connor. \$ 12 12 do 97 00 Afton and Glysboro' Intervale. A. Chisholm 15 1 12 do 97 00 Afton and Glysboro' Intervale. A. Chisholm 15 1 12 do 97 00 Alder River and Main Post Road. H. Horn 4 1 12 do 97 00 Alder Point and Little Bras d'Or . S. Plant. 6 1 12 do 97 00 Alder Point and Little Bras d'Or . S. Plant. 6 1 12 do 97 00 Alder River and Main Post Road. J. Chisholm 3 12 12 do 97 00 Alder River and Main Post Road. J. Chisholm 3 12 12 do 97 00 Alder River and Main Post Road. J. Chisholm 3 12 12 do 97 00 Alder River and Main Post Road. J. Chisholm 3 12 12 do 97 00 Alder River and Main Post Road. J. Chisholm 3 12 12 do 97 00 Alder River and Main Post Road. J. Chisholm 3 12 12 do 97 00 Alder River and Main Post Road. J. Chisholm 3 12 12 do 97 00 Alder River and Main Post Road. J. Chisholm 3 12 12 do 97 00 Amherst and Hastings E. Chapman 6 1 12 do 97 00 Amherst and Fastings E. Chapman 6 1 12 do 97 00 Amherst and Railway Station 7 00 00 Amherst and Railway Station 8 00 00 00 00 00 00 00 00 00 00 00 00 0	Name of Route.	of		No. of Trips per Week.	Period.	Amount.
Acadia Mines and Bass River. J. W. Davisen. 11 3 12 do			-		t ·	, ,
Addington Forks and Keppoch D. Campbell 7					·	
Addington Forks and Keppoch D. Campbell 7	Abercrombie and New Glasgow	R. Dunbar	5			68 00
Addington Forks and Keppoch D. Campbell 7	Acadia Mines and Londonderry Stn	J. W. Davison	23			
Advocate Harbor and Apple River, J. W. Ward. 10 6 12 do 345 00 Afton and Bayfield. T. W. Taylor. 22 16 12 do 0.97 00 Afton and Guysboro' Intervale. A. Chisholm. 15 1 12 do 0.56 00 Albert Bridge and Horns Road. H. Horn. 4 1 12 do 0.56 00 Albert Bridge and Horns Road. H. Horn. 4 1 12 do 0.56 00 Albert Bridge and Horns Road. H. Horn. 4 1 12 do 0.56 00 Albert Bridge and Horns Road. H. Horn. 4 1 12 do 0.56 00 Albert Bridge and Horns Road. H. Horn. 4 1 12 do 0.56 00 Albert Bridge and Petit de Grat. W. Landry. 2 2 3 9 do (to Dec. 31, '88). 37 50 00 Alder River and Main Post Road. J. Chisholm. 4 1 12 do 0.56 00 Alder River and Main Post Road. J. Chisholm. 4 1 12 do 0.56 00 Alder River and Main Post Road. J. Chisholm. 4 1 12 do 0.56 00 Amherst and Amherst Eoint. I. B. Stewart. 4 1 2 do 0.56 00 20 00 Amherst and Hastings. E. Chapman. 6 1 12 do 0.56 00 Amherst and Hastings. E. Chapman. 6 1 12 do 0.56 00 Amherst and Linden. K. Hunter. 20 3 12 do 0.210 00 Amherst and Linden. K. Hunter. 20 3 12 do 0.210 00 Amherst and Railway Station. M. Hillson. 4 1 Annapolis and Digby. R. H. Hardwick. 14 Annapolis and Digby. R. H. Hardwick. 21 do 210 00 Annapolis and Digby. R. H. Hardwick. 21 do 22 do 0.30 00 400 Annapolis and Railway Station. A. W. Corbitt. 5 12 do 0.396 00 Annapolis and Railway Station. A. W. Corbitt. 5 12 do 0.396 00 Annapolis and Railway Station. A. W. Corbitt. 5 12 do 0.396 00 Annapolis and Railway Station. A. W. Corbitt. 5 12 do 0.50 00 Annapolis and Railway Station. A. W. Corbitt. 5 12 do 0.50 00 Annapolis and Railway Station. A. W. Corbitt. 5 12 do 0.50 00 Annapolis and Railway Station. A. W. Corbitt. 5 12 do 0.50 00 40 00 Annapolis and Railway Station. A. W. Corbitt. 5 12 do 0.50 00 40 00 Annapolis and Railway Station. A. W. Corbitt. 5 12 do 0.50 00 40 00 Annapolis and Railway Station. A. W. Corbit. 5 12 do 0.50 00 40 00 Annapolis and Railway Station. A. W. Corbit. 5 12 do 0.50 00 40	do do	A. J. Gough	$\frac{2\frac{4}{3}}{2\frac{3}{4}}$			43 75
Afton and Bayfield Road Ry. Station M. Connor	Addington Forks and Keppoch	D. Campbell	7		12 do	60 00
Afton and Bayfield Road Ry. Station M. Connor	Advocate Harbor and Apple River.	J. W. Ward	10		40 7	
Afton and Guysboro' Intervale. A. Chisholm. 15	Afton and Bayfield Road Ry. Station	$^{\perp}$ M. Connor			100	
Adder Foint and Little Bras d'Or S. Plant 6 1 12 do 35 60 15 60	Afton and Guysboro' Intervale	A. Chisholm	15	1	12 do	55,00
Adder Foint and Little Bras d'Or S. Plant 6 1 12 do 35 60 15 60	Albert Bridge and Horns Road	H. Horn	4			
Alder River and Main Post Road J. Chisholm .	do do	do	$\frac{2}{21}$			
Alton and Railway Station . T. Limbsay	Alder Point and Little Bras d'Or	S Plant	6	1	12 do	
Amherst and Little River G. A. Purdy 22½ 2 12 do 240 00 Amherst and Railway Station M. Hillson 1 4 Asreq 12 do 405 440 40 Annapolis and Dalhousie West J. Gormley 16 1 6 do (from Oct. 1, '88) 50 60 Annapolis and Granville Ferry W. H. Weather spoon 1 1 6 12 do 250 60 Annapolis and Liverpool G. & E. Stailing 67 6 12 do 250 60 Annapolis and Perott Settlement N. Dargie 9 1 12 do 250 60 Annapolis and Railway Station A. W. Corbitt 1 12 do 4 112 60 Annapolis and Saw Mill Creek R. Harris 3 3 12 do 4 112 60 Annapolis and Saw Mill Creek R. Harris 3 1 1 6 do (to Sept. 30, '88). 70 60 Annapolis and Arisaig, &c. McDonald & 6 Gillis 7 & 70 60 Antigonishe and Brophy's H. Dunn 14 2 6 do (to Sept. 30, '88). 80 60 Antigonishe and Cloverville J. Thompson 5 1 12 do (to Sept. 30, '88). 80 60 Antigonishe and Cross Roads Ohio Antigonishe and Cross Roads Ohio Antigonishe and Railway Station Antigonishe and Railway Station Lower Settlement, South River M. McGrath 40 1 12 do 388 60 Antigonishe and Railway Station Lower Settlement, South River J. Kiely 42 2 12 do 388 60 Antigonishe and Sherbrooke M. McGrath 40 Antigonishe Harbor (South Side) and Lower Settlement, South River J. Kiely 42 2 12 do 388 60 Antigonishe and Gay's River J. H. Copp. 3 6 12 do 50 50 60 Antigonishe and Railway Station Antigonishe Harbor (South Side) and Lower Settlement, South River J. Kiely 42 2 12 do 50 55 60 Antonian and Gay's River J. H. Copp. 3 6 12 do 55 60 Apple River and East Apple River J. H. Copp. 3 6 12 do 50 50 60 Argyle and Angyle Head A. J. Nickerson 2 12 do 50 50 60 Argyle Sound and Lower Argyle E. Murphy 3 1 12 do 6 6 12 do 6 60 60 Arichat and Petit de Grat A. A. McDonald 3 6 8 82 82 82 82 80 Arichat and Railway Station H. McDonald 6 1 12 months 8 55 60 Ashfield and Whytocomagh H. McDonald 6 1 12 months 2 40 60 Ashfield and Whytocomagh H. McDonald 6 1 12 months 2 40 60 Ashfield and Whytocomagh H. McDonald 6 1 12 months 5 12 60 60 60 60 60 60 60 60 60 60 60 60 60	Alder River and Main Post Road.	J. Chisholm	- 14	12		
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Amherst and Little River G. A. Purdy 22½ 2 12 do 240 00 Amherst and Railway Station M. Hillson 1 4 Asreq 12 do 405 440 40 Annapolis and Dalhousie West J. Gormley 16 1 6 do (from Oct. 1, '88) 50 60 Annapolis and Granville Ferry W. H. Weather spoon 1 1 6 12 do 250 60 Annapolis and Liverpool G. & E. Stailing 67 6 12 do 250 60 Annapolis and Perott Settlement N. Dargie 9 1 12 do 250 60 Annapolis and Railway Station A. W. Corbitt 1 12 do 4 112 60 Annapolis and Saw Mill Creek R. Harris 3 3 12 do 4 112 60 Annapolis and Saw Mill Creek R. Harris 3 1 1 6 do (to Sept. 30, '88). 70 60 Annapolis and Arisaig, &c. McDonald & 6 Gillis 7 & 70 60 Antigonishe and Brophy's H. Dunn 14 2 6 do (to Sept. 30, '88). 80 60 Antigonishe and Cloverville J. Thompson 5 1 12 do (to Sept. 30, '88). 80 60 Antigonishe and Cross Roads Ohio Antigonishe and Cross Roads Ohio Antigonishe and Railway Station Antigonishe and Railway Station Lower Settlement, South River M. McGrath 40 1 12 do 388 60 Antigonishe and Railway Station Lower Settlement, South River J. Kiely 42 2 12 do 388 60 Antigonishe and Sherbrooke M. McGrath 40 Antigonishe Harbor (South Side) and Lower Settlement, South River J. Kiely 42 2 12 do 388 60 Antigonishe and Gay's River J. H. Copp. 3 6 12 do 50 50 60 Antigonishe and Railway Station Antigonishe Harbor (South Side) and Lower Settlement, South River J. Kiely 42 2 12 do 50 55 60 Antonian and Gay's River J. H. Copp. 3 6 12 do 55 60 Apple River and East Apple River J. H. Copp. 3 6 12 do 50 50 60 Argyle and Angyle Head A. J. Nickerson 2 12 do 50 50 60 Argyle Sound and Lower Argyle E. Murphy 3 1 12 do 6 6 12 do 6 60 60 Arichat and Petit de Grat A. A. McDonald 3 6 8 82 82 82 82 80 Arichat and Railway Station H. McDonald 6 1 12 months 8 55 60 Ashfield and Whytocomagh H. McDonald 6 1 12 months 2 40 60 Ashfield and Whytocomagh H. McDonald 6 1 12 months 2 40 60 Ashfield and Whytocomagh H. McDonald 6 1 12 months 5 12 60 60 60 60 60 60 60 60 60 60 60 60 60	Amherst and Fenwick	W. Pipes	$\frac{1}{6}^2$	1	12 do	32 00
Amherst and Little River G. A. Purdy 22½ 2 12 do 240 00 Amherst and Railway Station M. Hillson 1 4 Asreq 12 do 405 440 40 Annapolis and Dalhousie West J. Gormley 16 1 6 do (from Oct. 1, '88) 50 60 Annapolis and Granville Ferry W. H. Weather spoon 1 1 6 12 do 250 60 Annapolis and Liverpool G. & E. Stailing 67 6 12 do 250 60 Annapolis and Perott Settlement N. Dargie 9 1 12 do 250 60 Annapolis and Railway Station A. W. Corbitt 1 12 do 4 112 60 Annapolis and Saw Mill Creek R. Harris 3 3 12 do 4 112 60 Annapolis and Saw Mill Creek R. Harris 3 1 1 6 do (to Sept. 30, '88). 70 60 Annapolis and Arisaig, &c. McDonald & 6 Gillis 7 & 70 60 Antigonishe and Brophy's H. Dunn 14 2 6 do (to Sept. 30, '88). 80 60 Antigonishe and Cloverville J. Thompson 5 1 12 do (to Sept. 30, '88). 80 60 Antigonishe and Cross Roads Ohio Antigonishe and Cross Roads Ohio Antigonishe and Railway Station Antigonishe and Railway Station Lower Settlement, South River M. McGrath 40 1 12 do 388 60 Antigonishe and Railway Station Lower Settlement, South River J. Kiely 42 2 12 do 388 60 Antigonishe and Sherbrooke M. McGrath 40 Antigonishe Harbor (South Side) and Lower Settlement, South River J. Kiely 42 2 12 do 388 60 Antigonishe and Gay's River J. H. Copp. 3 6 12 do 50 50 60 Antigonishe and Railway Station Antigonishe Harbor (South Side) and Lower Settlement, South River J. Kiely 42 2 12 do 50 55 60 Antonian and Gay's River J. H. Copp. 3 6 12 do 55 60 Apple River and East Apple River J. H. Copp. 3 6 12 do 50 50 60 Argyle and Angyle Head A. J. Nickerson 2 12 do 50 50 60 Argyle Sound and Lower Argyle E. Murphy 3 1 12 do 6 6 12 do 6 60 60 Arichat and Petit de Grat A. A. McDonald 3 6 8 82 82 82 82 80 Arichat and Railway Station H. McDonald 6 1 12 months 8 55 60 Ashfield and Whytocomagh H. McDonald 6 1 12 months 2 40 60 Ashfield and Whytocomagh H. McDonald 6 1 12 months 2 40 60 Ashfield and Whytocomagh H. McDonald 6 1 12 months 5 12 60 60 60 60 60 60 60 60 60 60 60 60 60	Amherst and Hastings	E. Chapman	6	1	12 do	40 00
Amherst and Railway Station M. Hillson H. Arreq 12 do	Anmerst and Linden	IX. Hunter	20	9	40 3	
Annapolis and Dalhousie West. J. Gormley. 16	Amherst and Railway Station	M. Hillson				
Annapolis and Digby H. H. Hardwick spoon 1	Annapolis and Dalhousie West	J. Gormley	16	1	6 do (from Oct. 1, '88'	50 00
Annapolis and Liverpool G. & E. Stailing 67 67 6 12 do 2399 90 Annapolis and Perott Settlement N. Dargie 9 1 12 do 45 00 Annapolis and Saw Mill Creek R. Harris 3½ 3 12 do 70 00 Annapolis and Saw Mill Creek R. Harris 3½ 3 12 do 70 00 Annapolis and Saw Mill Creek R. Harris 3½ 3 12 do 70 00 Annapolis and Stoddart's J. Gormley 31 1 6 do (to Sept. 30, '88). Antigonishe and Brophy's H. Dunn 14 2 6 do (to Sept. 30, '88). Antigonishe and Cloverville J. Thompson 5 1 12 do 40 00 Antigonishe and Cross Roads Ohio T. McAnnis 13 2 8 do (to Nov. 30, '88, and extra trips) Antigonishe and Cross Roads Ohio T. McAnnis 13 2 8 do (to Nov. 30, '88, and extra trips) Antigonishe and Cross Roads Ohio T. McAnnis 13 2 8 do (to Nov. 30, '88, and extra trips) Antigonishe and Railway Station M. McGrath 40 3 12 do 398 00 398 00 40	Annapolis and Digby	K. H. Hardwick	21	6	12 do	396 00
Annapolis and Saw Mill Creek R. Harris	Annabous and Granville Ferry	vv. n. vveatner-		6	12 do	250.00
Annapolis and Saw Mill Creek R. Harris	Annapolis and Liverpool	G. & E. Stailing	$6\overline{7}$			
Annapolis and Saw Mill Creek R. Harris	Annapolis and Perott Settlement	N. Dargie	9		12 do	45 00
Antigonishe and Brophy's	Annapolis and Saw Mill Cross	A. W. Corbitt	Ŕ			
Antigonishe and Brophy's. H. Dunn. 14 2 6 6 do (to Sept. 30, '88) 80 00 do do T. Brophy. 14 2 6 do (from do 66 00 Antigonishe and Cloverville. J. Thompson 5 1 12 do 40 00 Antigonishe and Cross Roads Ohio. T. McAnnis. 13 2 8 do (to Nov. 30, '88, and extra trips) 84 20 Antigonishe and Georgeville. R. McDonald. 44 r. t. 4 12 do 398 00 Antigonishe and Railway Station. W. G. Cunning ham. 3½ 2 4 do (from Dec. 1, '88) 17 33 Antigonishe and Sherbrooke. M. McGrath. 40 3 12 do 398 00 Antigonishe and Sherbrooke. D. McDonald. 2½ 2 12 do 95 00 Antigonishe Harbor (South Side) and Lower Settlement, South River. Antigonishe Harbor (South River. Antigonishe and Gay's River. J. H. Taylor. 16 r. t. 2 12 do 55 00 Apple River and East Apple River. J. H. Copp. 3 6 12 do 55 00 Ardoness and Lismore. A. McDonald. 3 3 12 do 50 00 Ardoness and Lismore. A. McDonald. 3 3 12 do 50 00 Ardoness and Lismore. A. McDonald. 3 3 12 do 50 00 Argyle Sound and Lower Argyle. E. Murphy. 3½ 12 2 do 90 19 00 Arichat and Robins. C. Lenoir. 4 6 12 do 90 00 Arichat and Robins. C. Lenoir. 4 6 12 do 90 00 Artichat and Robins. C. Lenoir. 4 6 12 do 90 00 Ashfield and Whyccomagh H. McDonald. 6 1 12 months 70 00 00 Ashfield and Whyccomagh H. McDonald. 6 1 12 months 24 00 00 00 Ardone Railway Station. E. Donkin. 1 1 12 12 do 10 00 00 00 00 00 00 00 00 00 00 00 00	Annapolis and Stoddart's	J. Gormley				70 00
Antigonishe and Brophy's. H. Dunn. 14 2 6 6 do (to Sept. 30, '88) 80 00 do do T. Brophy. 14 2 6 do (from do 66 00 Antigonishe and Cloverville. J. Thompson 5 1 12 do 40 00 Antigonishe and Cross Roads Ohio. T. McAnnis. 13 2 8 do (to Nov. 30, '88, and extra trips) 84 20 Antigonishe and Georgeville. R. McDonald. 44 r. t. 4 12 do 398 00 Antigonishe and Railway Station. W. G. Cunning ham. 3½ 2 4 do (from Dec. 1, '88) 17 33 Antigonishe and Sherbrooke. M. McGrath. 40 3 12 do 398 00 Antigonishe and Sherbrooke. D. McDonald. 2½ 2 12 do 95 00 Antigonishe Harbor (South Side) and Lower Settlement, South River. Antigonishe Harbor (South River. Antigonishe and Gay's River. J. H. Taylor. 16 r. t. 2 12 do 55 00 Apple River and East Apple River. J. H. Copp. 3 6 12 do 55 00 Ardoness and Lismore. A. McDonald. 3 3 12 do 50 00 Ardoness and Lismore. A. McDonald. 3 3 12 do 50 00 Ardoness and Lismore. A. McDonald. 3 3 12 do 50 00 Argyle Sound and Lower Argyle. E. Murphy. 3½ 12 2 do 90 19 00 Arichat and Robins. C. Lenoir. 4 6 12 do 90 00 Arichat and Robins. C. Lenoir. 4 6 12 do 90 00 Artichat and Robins. C. Lenoir. 4 6 12 do 90 00 Ashfield and Whyccomagh H. McDonald. 6 1 12 months 70 00 00 Ashfield and Whyccomagh H. McDonald. 6 1 12 months 24 00 00 00 Ardone Railway Station. E. Donkin. 1 1 12 12 do 10 00 00 00 00 00 00 00 00 00 00 00 00	Antigonishe and Arisaig, &c	McDonald &				
Antigonishe and Georgeville		(An Inc	7 & 10	2 & 1	12 do	145 00
Antigonishe and Georgeville	do do do	T Brophy	14	2	6 do from do	66 00
Antigonishe and Georgeville	Antigonishe and Cloverville	J. Thompson	5	1	12 do	40 00
Antigonishe and Georgeville	Antigonishe and Cross Roads Ohio.	T. McAnnis	13	2	8 do (to Nov. 30, '88,	0.1.00
Antigonishe and Lower West River, T. McAnnis. Antigonishe and Railway Station. W. G. Cunning ham. M. McGrath. M. McGrath. M. McGrath. M. McGrath. M. McDonald. M. McDonald. M. McDonald. M. McGrath. M. McGrath. M. McGrath. M. McDonald. M. McGrath. M. McDonald. M. McDonald. M. McDonald. M. McDonald. M. McGrath. M. McDonald. M. McGrath. M. McDonald. M. McDona				А	and extra trips	84 20
Antigonishe and Sherbrooke. M. McGrath. 40 3 12 do 1,119 28 Antigonishe and Williams' Point D. McDonald. 2½ 2 12 do 40 00 Antigonishe Harbor (South Side) and Lower Settlement, South River. J. Kiely 4½ 2 12 do 55 00 Antrim and Gay's River. J. H. Taylor. 16 r. t. 2 12 do 55 00 Antrim and Gay's River. J. H. Copp. 3 6 12 do 55 00 Arcadia and East Chebogue. W. W. Coffin. 4 2 12 do 55 00 Ardness and Lismore. A. McDonald. 3 3 12 do 50 00 Ardoise Hill and Newport Station M. Harvey. 19 r. t. 3 & 2 12 do 50 00 Argyle Sound and Lower Argyle. E. Murphy. 3½ 12 do 50 00 Arichat and Lennox Ferry. A. Martell. 5 4 Season 1888. 50 00 Arichat and Petit de Grat. A. McDonald. 3 3 12 months 87 50 Arichat and Robins. C. Lenoir. 4 6 12 do 70 00 Arichat and West Arichat. A. McDonald. 3 6 Season 1888. 225 00 Ashfield and Whycocomagh. H. McDonald. 6 1 12 months 24 00 Athol and Railway Station. E. Donkin. 1 12 12 12 do 100 00	Antigonishe and Lower West River	T. McAnnis	31			
Antigonishe and Sherbrooke. M. McGrath. 40 3 12 do 1,119 28 Antigonishe and Williams' Point D. McDonald. 2½ 2 12 do 40 00 Antigonishe Harbor (South Side) and Lower Settlement, South River. J. Kiely 4½ 2 12 do 55 00 Antrim and Gay's River. J. H. Taylor. 16 r. t. 2 12 do 55 00 Antrim and Gay's River. J. H. Copp. 3 6 12 do 55 00 Arcadia and East Chebogue. W. W. Coffin. 4 2 12 do 55 00 Ardness and Lismore. A. McDonald. 3 3 12 do 50 00 Ardoise Hill and Newport Station M. Harvey. 19 r. t. 3 & 2 12 do 50 00 Argyle Sound and Lower Argyle. E. Murphy. 3½ 12 do 50 00 Arichat and Lennox Ferry. A. Martell. 5 4 Season 1888. 50 00 Arichat and Petit de Grat. A. McDonald. 3 3 12 months 87 50 Arichat and Robins. C. Lenoir. 4 6 12 do 70 00 Arichat and West Arichat. A. McDonald. 3 6 Season 1888. 225 00 Ashfield and Whycocomagh. H. McDonald. 6 1 12 months 24 00 Athol and Railway Station. E. Donkin. 1 12 12 12 do 100 00	Antigonishe and Railway Station	W. G. Cunning-				i
Antigonishe Harbor (South River. Anthony's Line and Scotch Village Antripantian Form. J. Kiely	Anticonishe and Sherbrooks	ham M. McGroth	404			
Antigonishe Harbor (South Side) and Lower Settlement, South River. J. Kiely. 4½ 2 12 do 100 00 Anthony's Line and Scotch Village S. Cochran 11 r. t. 2 12 do 55 00 Antrim and Gay's River. J. H. Copp. 3 6 12 do 55 00 Arcadia and East Apple River. J. H. Copp. 3 6 12 do 55 00 Arcadia and East Chebogue. W. W. Coffin. 4 2 12 do 50 00 Ardness and Lismore. A. McDonald. 3 3 12 do 50 00 Ardness and Lismore. A. McDonald. 3 3 12 do 50 00 Ardoise Hill and Newport Station. M. Harvey. 19 r. t. 3 & 2 12 do 131 12 25 25 25 25 25 25 2	Antigonishe and Williams Point	D. McDonald	$\frac{10}{2\frac{1}{2}}$			
Argyle Sound and Lower Argyle E. Murphy 3½ 1 12 do 19 00 Arichat and Lennox Ferry A. Martell 5 4 Season 1888 50 00 Arichat and Petit de Grat A. McDonald 3 3 12 months 87 50 Arichat and Robins C. Lenoir 4 6 12 do 70 00 Arichat and West Arichat A. McDonald 3 6 Season 1888 25 00 Ashfield and Whycocomagh H. McDonald 6 1 12 months 24 00 Athol and Railway Station E. Donkin 1 12 12 do 100 00	A (' ' 1 TT 1 (O (1 O'1) 1					
Argyle Sound and Lower Argyle E. Murphy 3½ 1 12 do 19 00 Arichat and Lennox Ferry A. Martell 5 4 Season 1888 50 00 Arichat and Petit de Grat A. McDonald 3 3 12 months 87 50 Arichat and Robins C. Lenoir 4 6 12 do 70 00 Arichat and West Arichat A. McDonald 3 6 Season 1888 25 00 Ashfield and Whycocomagh H. McDonald 6 1 12 months 24 00 Athol and Railway Station E. Donkin 1 12 12 do 100 00	Lower Settlement, South River.	J. Kiely	11 " +	2		
Argyle Sound and Lower Argyle E. Murphy 3½ 1 12 do 19 00 Arichat and Lennox Ferry A. Martell 5 4 Season 1888 50 00 Arichat and Petit de Grat A. McDonald 3 3 12 months 87 50 Arichat and Robins C. Lenoir 4 6 12 do 70 00 Arichat and West Arichat A. McDonald 3 6 Season 1888 25 00 Ashfield and Whycocomagh H. McDonald 6 1 12 months 24 00 Athol and Railway Station E. Donkin 1 12 12 do 100 00	Antrim and Gav's River.	J. H. Taylor	16 r. t.	$\frac{2}{2}$	12 do	
Argyle Sound and Lower Argyle E. Murphy 3½ 1 12 do 19 00 Arichat and Lennox Ferry A. Martell 5 4 Season 1888 50 00 Arichat and Petit de Grat A. McDonald 3 3 12 months 87 50 Arichat and Robins C. Lenoir 4 6 12 do 70 00 Arichat and West Arichat A. McDonald 3 6 Season 1888 25 00 Ashfield and Whycocomagh H. McDonald 6 1 12 months 24 00 Athol and Railway Station E. Donkin 1 12 12 do 100 00	Apple River and East Apple River.	J. H. Copp	3	6	12 do	50 00
Argyle Sound and Lower Argyle E. Murphy 3½ 1 12 do 19 00 Arichat and Lennox Ferry A. Martell 5 4 Season 1888 50 00 Arichat and Petit de Grat A. McDonald 3 3 12 months 87 50 Arichat and Robins C. Lenoir 4 6 12 do 70 00 Arichat and West Arichat A. McDonald 3 6 Season 1888 25 00 Ashfield and Whycocomagh H. McDonald 6 1 12 months 24 00 Athol and Railway Station E. Donkin 1 12 12 do 100 00	Arcadia and East Chebogue	W. W. Coffin	4	2		40 00
Argyle Sound and Lower Argyle E. Murphy 3½ 1 12 do 19 00 Arichat and Lennox Ferry A. Martell 5 4 Season 1888 50 00 Arichat and Petit de Grat A. McDonald 3 3 12 months 87 50 Arichat and Robins C. Lenoir 4 6 12 do 70 00 Arichat and West Arichat A. McDonald 3 6 Season 1888 25 00 Ashfield and Whycocomagh H. McDonald 6 1 12 months 24 00 Athol and Railway Station E. Donkin 1 12 12 do 100 00	Ardoise Hill and Newport Station	M. Harvey	19 r. t.	3 & 2		
Arichat and Lennox Ferry A. Martell 5 4 Season 1888 50 00 Arichat and Petit de Grat A. McDonald 3 3 12 months 87 50 Arichat and Robins C. Lenoir 4 6 12 do 70 00 Arichat and West Arichat A. McDonald 3 6 Season 1888 25 00 Ashfield and Whycocomagh H. McDonald 6 1 12 months 24 00 Athol and Railway Station E. Donkin 1 12 12 do 100 00	Argyle and Argyle Head	A. J. Nickerson	2	•	12 do	40 00
Arichat and Petit de Grat A. McDonald 3 3 12 months 87 50 Arichat and Robins C. Lenoir 4 6 12 do 70 00 Arichat and West Arichat A. McDonald 3 6 Season 1888 25 00 Ashfield and Whycocomagh H. McDonald 6 1 12 months 24 00 Athol and Railway Station E. Donkin 1 12 12 do 100 00	Argyle Sound and Lower Argyle	E. Murphy	$\frac{3\frac{1}{2}}{2}$		12 do	19 00
Arichat and Robins. C. Lenoir. 4 6 12 do 70 00 Arichat and West Arichat. A. McDonald. 3 6 Season 1888. 25 00 Ashfield and Whycocomagh. H. McDonald. 6 1 12 months. 24 00 Athol and Railway Station. E. Donkin. 1 12 12 do 100 00	Arichat and Lennox Ferry	A. McDonald	3			
Arichat and West Arichat	Arichat and Robins	C. Lenoir	4	6	12 do	70 00
Athol and Rallway Station E. Donkin 1 12 12 do 100 00	Arichat and West Arichat	A. McDonald	3		Season 1888	25 00
Auburn and Greenwood	Athol and Railway Station	H. McDonald				
$72\degree$	Auburn and Greenwood	G. W. Eaton	61 r. t.			
		72	2			

	1					
Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
	The second secon					\$ cts.
Auburn and Railway Station Auld's Cove and Railway Station Avondale Station and Railway Sta-	H. McMullan	$1\frac{1}{2}$	6	12 do		43 00 50 00
Avonport and Avonport Station Avonport Station and Railway Sta-		$1 \over 1 \frac{1}{2}$	12 6	12 do 12 do		$\begin{array}{ccc} 25 & 00 \\ 100 & 00 \end{array}$
tion Aylesford and Bridgewater Aylesford and Harmony Aylesford and Monden	M. N. Graves A. D. Nichols	12 yds. 60 20 r. t.	$\begin{array}{c c} 12\\1\\1\\2\end{array}$	12 do 12 do 12 do 12 do		$ \begin{array}{r} 30 \ 00 \\ 224 \ 00 \\ 57 \ 00 \\ 130 \ 00 \end{array} $
Aylesford and Morden Aylesford and Railway Station Baccaro and Port La Tour. Back Meadows and Poplar Hill.	W. P. Snow	3	$\begin{array}{c c} 12\\2\\2\\2\end{array}$	12 do 12 do 12 do	• • • • • • • • • • • • • • • • • • • •	60 00 39 00 40 00
Baddeck and Big Bras d'Or Baddeck and Grand Narrows Baddeck and New Campbellton	W. McDonald F. H. S. McNeill M. D. McInnis.	30	3 1 3	12 do 12 do 5 do	(to Aug. 31, '88).	$529 00 \\ 65 72 \\ 166 25$
Baddeck and Rear Baddeck Bay Baddeck and Upper Settlement,		32	3 1	7 do 12 do		248 26 52 00
Baddeck River	D. L. Morrison.	16 16	$\frac{2}{2}$	4 do 8 do		21 00 46 48
Middle River Baddeck Bay and Plaister Mines Baddeck River, North Branch, and	A. G. Crowdis H. Fraser	19	2 2	12 do		143 00 27 00
Forks Baddeck Baie Verte and Linden Bailey's Brook and Railway Sta-	A. H. Buchanan. S. Moore		3 & 2	12 do		28 00 160 00
tionBaker Settlement and Greenfield Batmoral Mills and The Falls	A. Baker A. McKay	8 & 5	3 & 1	12 do 12 do 12 do		$\begin{array}{c} 125 \ 24 \\ 115 \ 00 \\ 40 \ 00 \end{array}$
Banks Broad Cove and Strathlorne. Barney's River and Marsh Barney's River and Railway Sta-	G. Campbell	18 r. t.		12 do		15 00 38 96
Barrington and Port Clydedo do do Rappington and Rubnica Rocal	O. L. Davison J. K. Hogg	30 r. t. 30 r. t.	6	12 do 10 do 2 do 12 do	(to Jan. 31, '89) . from do	133 88 260 00 55 00
Barrington and Pubnico Beach Barrington and Yarmouth Barrington Passage and Cape Sable	O. L. Davison T. E. Ryer	22 4 23	6 6	3 do 3 do	(from Jan 1, '89).	456 00 400 00 118 75
Island Barr Settlement and Shubenacadie. Barrio's Beach and Big Tracadie	J. W. Robertson J. W. Densmore	32 r. t.	6 1 3	12 do 12 do 9 do) , <u>.</u>	275 00 97 00 37 50
do do Barss' Corner and Chesley's Corner. Barss' Corner and Mahone Bay	A. F. Bowden A. Tretheway I. De Long	17 r. t. 18	$\begin{bmatrix}2&1\\1&1\end{bmatrix}$	3 do 12 do 12 do	from do	7 50 70 00 79 00
Barton and Railway Station Basin River Inhabitants and Lower River Inhabitants	W. Gavel J. A. McCarthy.	3	12	12 do		115 00 28 00
Basin River Inhabitants and McNa- mara's Island Battery Hill and New Gairlock Battery Hill and Railway Station.	E. McNamara	8	2 3	12 do		120 00
Baxter's Harbor and Sheffield Mills	W. E. Harris	7 91	1	6 de	to Sept. 30, '88) from do	29 58
Bay St. Lawrence and Ingonish Bay St. Lawrence and Meat Cove.	D. McLeod	. 7	$\begin{bmatrix} 2\\2\\2 \end{bmatrix}$		(to Dec. 31, '88).	430 00 41 25 12 00
Bear Cove, Cheticamp & Meteghan Bear River West Side and Deep	G. L. Comeau	1	2	6 do		20 00 230 00
Brook, &c. Bear River, West Side, and Digby. Beauly and Black River	R. McClelland. C. Grant	. 2	6,3 & 3	2 12 de 12 de)	73 00

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
						B 04.
						\$ cts.
Beaver Bank & Middle Sackville, &c	L. L. Hamilton.	13 r. t.	6 & 3		ths (to Sept. 30, '88)	147 24
do do RegyerBank and North BegyerBank	R. Emmerson	15 r. t.	0 & 3		from do	$\begin{array}{ccc} 137 & 50 \\ 80 & 00 \end{array}$
BeaverBank and North BeaverBank Beaver Bank and Railway Station.	D. Hallisev	12 vds	12	12 do		93 00
Beaver River Corner & Cedar Lake	A. Porter	18 r. t.	1	12 do		40 00
Bedford Basin and English Corner. Bedford Basin and Railway Station	N. Melvin	91	3			154 00
Bedford Basin and Railway Station	W. McKenzie	100 yd	$\frac{42}{2}$	12 do 6 do		130 00
Beechmont and North West Arm	M. McLeod	4	$\frac{2}{2}$		(to Sept. 30, '88). from do	$\begin{array}{ccc} 19 & 00 \\ 12 & 50 \end{array}$
Belmont and Debert Station	C. McDermond.	15 r. t.	$\tilde{2}$	12 do		104 00
Dolmont and Doilmon Station	'l' landgosz		1.7			, 120 00
Berwick and Buckley's Berwick and Brillian Station	S. C. Parker	$22\frac{1}{2}$ r.t.	2			110 00
Berwick and Morristown	E. Nichols	14 r. t.	$\frac{1}{6}$			$\frac{40}{50} \frac{00}{00}$
Berwick and Railway Station Berwick Ry. Station & Harborville	G Collins	113	U			100 00
Berwick Ry. Station and Somerset.	G. W. Kinsman.	23	4	12 do		70 00
Big Intervale Margaree and Mar-		*		1		
garoo Forks	D. Campbell	17		12 do		175 00
Big Island and Merigomishe. Big Lorraine and Sydney.	D. Cameron	16				77 50
Big Lorraine and Sydney Big Marsh and Maryvale	D. J. McDonald	31				$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Big Pond and Rear Ben Eoin	A. Gillis	6				25 00
Big Pond and Rear Ben Eoin Big Pond and Salem Road	H. D. Munro	12	2	12 do		68 00
Big Port LeBear and Sable River.	G. Harding	12		12 do		90 00
Big Tracadie and Mattie Big Tracadie and Railway Station.	E. Coty	100		12 do	• • • • • • • • • • • • • • • • • • • •	40 00
Big Tracadie and Railway Station. Birchtown and Churchover	J. J. Gregory	100 ya	12	12 do 9 do	(to Dec. 31, '88).	40 00 18 00
Birchtown and Clyde River	F. G. Nicoll	29	3		from do	100 00
Bishopville and Hantsport Black Rock and Parrsboro'. Blanchard Road and New Glasgow	R. E. Bishop	6	2	12 do		80 00
Black Rock and Parrsboro'	M. Phinney	6	1	12 do	***************************************	42 00
Blanchard Road and New Glasgow	D. Fraser	14	$\frac{2}{2}$	12 do 9 do	(to Doc 21 '88)	.160 00 30 00
Blanche and Cape Negrodo do do	M Slate	4	$\frac{2}{2}$		(to Dec. 31, '88). from do	12 50
Blandford and Hubbard's Cove do do	J. Zink	17	3	3 do		70 00
do do	W. A. Mitchell.	17	3	9 do		202 50
Blandford and Tancook Island	J. Pearl	4	1	12 do		38 00
Blomidon and Canning Blomidon and Lower Blomidon	A Kennedy	$\frac{7\frac{1}{3}}{2\frac{1}{3}}$	$\frac{6}{2}$	12 do 12 do		$199 04 \\ 25 00$
Bloomfield and Main Post Road	H. R. Jones	1 2	$1\overline{2}$	12 do		25 00
Bloomfield and Main Post Road Blue Rock and Lunenburg	J. E. Hunt	5°	1	2 do		6 66
do do	ao	9	2	4 do		26 66
do	do	5	1		from do	20 00
do do	H. McDougall	15	$\frac{2}{1}$	12 do 12 do		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Boulardarie and Little Bras d'Or	J. Dav	20	3 & 2	12 do		289 00
Boulardarie and Point Clear	J. Munro	7	2	12 do		76 36
Boylston and Milford Haven Bridge	J. K. Atwater	를 가고 있다.		10 do	(from June 1, '88)	83 33
Boylston and Pirate Harbor Brazil Lake and Railway Station	A. Hull	50 r. t.		12 do 12 do		395 00 20 00
Brazil Lake and Railway Station Brenton and South Ohio	S. Pennell	4		12 do		20 00
Bridgetown and Dalhousie West	L. A. Dickie	28 r. t.	î.		(from Oct. 1, '88)	45 00
Bridgetown and Dalhousie West Bridgetown and Grenville Ferry	B. Reed	14	3	3 do	(from Oct. 1, '88) (to June 30, '88).	48 50
do do	J. E. Keed	14	- 5		from do	145 50
Bridgetown and Lawrencetown Bridgetown and Middletown	W. E. Poole	18 r.t.	$\frac{1}{2}$	12 do 12 do		$75 00 \\ 147 00$
Bridgetown and Parker's Cove	I. F. Hall	27 r.t.	2&1	12 do		149 48
Bridgetown and Railway Station	F. Crosskill	4	12	12 do		100 00
Bridgewater and Halifax	G. Blair	91	6	12 do		4,550 00
Bridgewater and Lawrencetown Bridgewater and Mill Village	C. W. Phinney.	56	2	12 do		396 00
Bridgewater and Mill Village Bridgewater and New Canada	W T Cronin	26 r t	3	12 do 12 do		470 00 70 00
Redgewater and Pleasant River	J. Whitman	10		12 do		239 00
Bridgewater and Shelburne	J. K. Hogg	89	6	12 do		4,840 40
Brighton and Railway Station	E. Spittle	4		12 do		150 00
Briley's Brook and Railway Station.	R. Chisnoim	8	6	12 do	• • • • • • • • • • • • • • • • • • • •	40 00
	74	+				

Name of Route. *	Name of Contractor.	Distance in Miles.	No. of Trips per Week.			Period.	Amount.
							\$ cts.
Brookfield and Forest Glen	W. S. Hamilton.	13 r t.	2	12	mon	ths	65 00
Brookfield and Pleasant River	F. Waterman	8	3	12			116 00
Brookfield and Railway Station	J. Graham	100 y's		12	do		120 00
Brookfield and Upper Stewiacke Brookland and Salt Springs	W. Grav	18	6	$\frac{12}{12}$	do		$524 72 \\ 24 00$
Brookland and Salt Springs Brooklyn and Yarmouth	J. D. Morrill	4	1	12	do		40 00
Brown's Brook and Halfway River	C C Proum	4	1	12	do		40.00
StationBrown's Mountain and Marshy Hope	J. McDonald	51/2	1	12	do		$\frac{40\ 00}{25\ 00}$
Brulé and Denmark Road	J. W. McLeod.	3	3	11	do	(from May 1, '88)	45 83
Brulé and Forbes Buckfield and Main Post Road	J. Forbes	$\frac{2}{1}$	1 1	$\begin{vmatrix} 12 \\ 2 \end{vmatrix}$	do	(from Feb 1 '89)	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Buckley's and Kentville	M. A. Kinsman.		5	3	do	(from Feb. 1, '89) (to June 30, '88).	125 00
do do	E. H. Fuller	$34\frac{1}{2}$	5	9		from do .	313 50
Burlington and Victoria Harbor do do	A. B. Hall.	16 r.t.	1	$\begin{vmatrix} 6 \\ 6 \end{vmatrix}$	do do	(to Sept. 30, '88). from do .	18 50 19 74
Burntcoat and Noël	I. A. O'Brien	41/2	3	12	do		52 00
Cain's Mountain and McKinnon's		3	1	12	do		20 00
Harbor	D. McKenzie	0	1	12	,uo		20 00
Mines	H.J. McClelland	9	3	3	do	(from Jan. 1, '89)	40 00
Caledonia Corner and West Caledonia	W. Butler	3	3	12	do		85 00
Caledonia Corner and Whiteburn	W. Danet			1.4	uo		85 00
Mines	M. Chivers	5	3	12	do		75 00
Caledonia, St. Marys, and Upper Caledonia	D. M. Cameron.	6	1	6	do	(to Sept. 30, '88).	16 00
Cambridge Station and Condon						(*** ×*********************************	10 00
Settlement Pailway	J. Caldwell	10½r.t.	1	12	do		45 00
Cambridge Station and Railway Station	A. Neily	50 yds	12	12	do		26 00
Camden and Truro	E. Logan	9	2	12	do-		80 00
Road Road	D M Cameron	22 r t	2&1	6	do	(from Oct. 1 '88)	44 50
Canaan and Kentville	A. Bishop	6	6	9	do	(from Oct. 1, '88) (to Dec. 31, '88).	123 00
do	J. B. DeWolfe	6	6	3	do	from do .	43 25
Canaan and Tusket	E. Thomas	20 r.t. 91/2	$\frac{1}{2}$	$\frac{12}{12}$	do		$\frac{70\ 00}{67\ 00}$
Canard and Lower Canard	E. H. Lockwood	2	12	12	do		125 00
Cannes and River Bourgeoise			3 6	$\frac{12}{12}$	do		54 60
Canning and Kentville	W. West	5	6	12			$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Canning and Medford Canning and North Medford	B. Weaver	4	1	12	do		20 00
Canning and Port William Station.	J. L. Bishop	7 16	6 3	$\frac{12}{12}$	do		$\begin{array}{cccc} 247 & 00 \\ 176 & 00 \end{array}$
Canning and Scott's Bay	A. Munro	4	i	12	do		20 00
Canso and Guysboro	G. W. Scott	31	6	6	do		545 00
do	L McIsaac	34 20 r t.	$\begin{array}{c c} 6 \\ 1 \end{array}$	$\frac{6}{12}$	do	from do .	597 74 40 00
Cape Le Ronde and Rocky Bay	C. Doyle	3	$\frac{1}{2}$	12	do		30 00
Cane Negro Island and North East				10	3.		FF 00
Harbor Cape North and Dingwall	J. R. King	$\frac{3}{4\frac{1}{2}}$	$\frac{2}{2}$	$\frac{12}{12}$	do		55 00 38 00
Cape Sable Island and Clarke's					-		00 00
Harbor Carriboo Gold Mines and Upper	T. W. Covert	20 r.t.	6	12	do		392 00
Musquodoboit		8	3	12	do		156 00
Carroll's Corner and Elmsdale	J. Carroll.	191	2	12	do		64 00
Catalone and Catalone Gut Catalone and Little Lorraine	A. McDougall	$\frac{3^{\frac{7}{2}}}{12}$	$\frac{1}{3}$	12 12	do		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Catalone and New Boston	J. McDonald	4	2	12	do		29 00
Centreville and Hall's Harbor	B. A. Kirby		1	12	do		110 00
Chance Harbor and Pictou Landing. Chapman Settlement and Head of		4	1	12	do		20 00
Amherst	J. Greeno	6	1	12	do		25 00
	7.	5					

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
						\$ ets.
Chebogue Point and Yarmouth	W. Cain	12 r.t.	3	12 mc	onths	117 00
Chelsea and Pleasant River	H. Dexter	9	1	12 de	0	40 00
Chester and Kentville	J. L. Bishop	46 35	$\frac{2}{2}$	12 de 12 de		650 00 370 00
Cheverie and Kennetcook	W. Sanford	8	1	12 de	o	38 00
Cheverie and Newportdo	R. M. Wilcox	17 17	$\frac{6}{6}$	6 de	to Sept. 30, '88).	170 00
Cheverie and Walton		12	3	9 de		$257 50 \\ 116 25$
	R. Pratt		3 3	3 de		43 75
Chimney Corner and Dunyegan	L. McPherson.			$\begin{vmatrix} 12 & do \\ 12 & do \end{vmatrix}$	0	$\begin{array}{cccc} 140 & 00 \\ 28 & 00 \end{array}$
Chimney Corner and Dunvegan Chipman's Brook and Lakeville	C. N. Porter	18 r. t.	2 3	12 de		80 00
Christmas Island and East Bay Churchville and Mountville	J. Urquhart	29	1	12 de		387 92 20 00
Churchville and New Glasgow	J. Robertson	6	3	12 de		74 00
Clark's Harbor and The Hawk	M. Chapman R. W. Stephens	$\frac{3}{3\frac{1}{2}}$	$\frac{2}{6}$	12 do		29 00 43 50
Clark's Road and Louisburg	A. McLean	4 1/2	1	12 de		39 00
Clementsford and Clementsvale Cloverdale and Middle Stewiacke	G. G. Hicks	$\frac{4}{7}$	$\frac{3}{2}$	$\begin{vmatrix} 12 & \mathrm{d} \mathrm{d} \\ 12 & \mathrm{d} \mathrm{d} \end{vmatrix}$		58 00 60 00
Clyde River and Gunning Cove	J. K. Hogg	21	3	9 de		176 40
Clyde River and Upper Clyde River	R. Sutherland	25 5	1 1	12 de		91 00
Cogmogun River and Kennetcook. Coldbrook Station and Ry Station.	H. Porter			$\begin{vmatrix} 12 & do \\ 12 & do \end{vmatrix}$		$\frac{16}{28} \frac{00}{00}$
Coldstream and Gay's River	C. Gay	5	1	12 de		30 00
Comeauville and Railway Station	A. P. Theriau	$\frac{1\frac{1}{2}}{2}$	$\frac{3}{12}$	$\begin{array}{ccc} 12 & \mathrm{do} \\ 12 & \mathrm{do} \end{array}$		$ \begin{array}{ccc} 50 & 00 \\ 140 & 00 \end{array} $
Concession and Railway Station	A. A. Comeau	2	3	12 de		50 00
Conquerall Bank and Conquerall Mills	A Snyder	5	1	12 de	o	40 00
Corberrie and Weymouth Bridge	A. Melanson	14	2	12 de		136 00
Cow Bay and Mira Gut	J. Martell	25r. t. $26\frac{1}{2}$	$\frac{1}{6}$	12 do		75 00 400 00
Coxheath and Sydney	R. Martin	3	$\overset{\circ}{2}$	12 de		25 00
Cranton Section and North East		$2\frac{1}{2}$	3	12 de		30 00
Branch Margaree Cross Roads Country Harbor and	M. A. Ethridge.	22		12 uc		30 00
Goshen	J. G. Sinclair	10	1	12 de		35 48
Cross Roads Country Harbor and Guysboro'		24	3	9 de	(to Dec. 31, '88).	285 00
Cross Roads Ohio and Ireland	P. W. Murphy .	5	1	6 de		13 00
Cross Roads Ohio and James River Station		9	2	8 de	(to Nov. 30, '88).	52 99
do do	H.A. McDougall	10	6	4 de		98 66
Crouse Town and Petite Rivière Bridge	S. Hilton	3	1	12 de		20 00
Culloden and Digby	C. E. Turnbull.	17 r. t.	1	12 de		47 00
Cummings' Mountain and Sunnybrae	D. McIntosh	3	1	12 do)	20 00
Dalhousie Settlement and Durham.	H. McKay	11	2			73 00
Dartmouth and Halifax	J. E. Leadley	1	19	12 do		112 76
Mines	F. W. Cooper	7		12 de		120 00
Dartmouth and South East Passage	J. A. Shiers	48r t	1	12 do		$ \begin{array}{ccc} 52 & 00 \\ 150 & 00 \end{array} $
Dartmouth and West Chezzetcook. Dean and Shubenacadie	G. Hamilton	36	6	12 do		779 00
Dean and Shubenacadiedo do do	T. Cox	36	6 3	6 do	from do .	550 00
Debert Station and Folly Mountain Debert Station and Masstown	C. G. Fraser	173 4	3	$\begin{array}{ccc} 12 & \mathrm{d}\alpha \\ 12 & \mathrm{d}\alpha \end{array}$		$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Delop's Cove and Granville Ferry	W. W. Hardy	12	1	12 de)	60 00
Debert Station and Masstown Delop's Cove and Granville Ferry Dennistown and Judique Descouse and Lennox Ferry	N. McDonald	$\frac{7\frac{1}{2}}{3}$	$\frac{1}{6}$	12 do		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Descouse and Rocky Bay	do	3	2	12 do		30 00
do do	C. Doyle	3	2		10 months (to Mar.) 38—Special service)	20 00
	$^{'}$	3		019	· · · · · · · · · · · · · · · · · · ·	20 00

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.			Period.	Amount.
							\$ cts
Devon and Goffs	T. Cox	$5\frac{1}{2}$				ths	30 00
Digby and Railway Station	G. R. Burton	200 yd	$\frac{12}{2}$	$\begin{array}{c} 12 \\ 12 \end{array}$	do		$100 00 \\ 100 00$
Digby and Thorneville. Digby and Westport. Digby Wharf and Railway Station.	G. &. E. Stailing	43	$\tilde{6}$	12	do		1,199 00
Digby Wharf and Railway Station. Doherty Creek and Street's Ridge	G. R. Burton	200 yd 10	$\frac{6}{3}$	$\frac{12}{12}$			50 00 119 00
Dover East and Peggy's Cove	W. Baker	4	2	12	do		60 00
Dufferin Mines and Salmon River Dunmaglass and McArra's Brook	A. Gallagher	$\frac{3_{2}^{1}}{3}$	3 3	$\frac{12}{12}$	do		60 00 50 00
East Bay and McAdam's Lake	R. R. McDonald		2	1	do	(to Apr. 30, '88).	6 25
do do	J. McDonald	65	2 6	$\frac{11}{12}$	do	from do	54 08
East Bay and Sydney Mines East Chezzetcook and Head of Chez-	J. W. Feppitt	19	0	12	do		696 00
zetcook	J. Smith	3	1	12	do		25 00
Eastern Harbor and Little River Cheticamp	L. LeBlanc	$2\frac{1}{2}$	2	7	do	from Sept. 1, '88.	14 58
Eastern Harbor and Pleasant Bay	J. G. McIntosh.	24	1	12	do		100 00
Eastern Harbor and Port Hastings. do do	W. P. Fynn H. A. Archibald	101	6	6	do	(to Sept. 30, '88). from do	3,550 00 $3,550 00$
East Jeddore and Jeddore Oyster						110111 40	,
Ponds	D. Mitchell	$3\frac{1}{2}$	2	12	do		72 00
ampton	E. Brown.	6	2	12	do		100 00
East Margaree and Post Road	D. McInnes	2	6	12	do		65 00
East Mines Station and Folly Village	D. L. Urquhart.	410	12	12	do		225 00
East Mines Station and Ry. Station.	C. Morrison	20 yds	6	12	do		50 00
East Mountain and Valley Station. East River, St. Mary's and Green's		2	. 2	9	do	(from July 1, '88)	30 00
Brook	M. Green	$5\frac{1}{2}$	1	12	do		20 00
East River, Sheet Harbor and West River, Sheet Harbor	J. H. Dimock	4	3	4	do	15 days (to Aug.	
Itiver, Sheet Harbor	o. II. Dimock	1		1	ao	10, 1888).	37 50
East Side Pubnico Harbor and Forbes' Point	J. McComisky	$10\frac{1}{2}$	3	12	do		183 00
East Side Ragged Islands and		103		14	do		100 00
Lewis Head	G. Craig	6	1	6	do	15 days (to Oct.	32 50
East Side Ragged Islands and						15, 1888).	34 30
Wall's Corner,	W. P. Hupman.	3	2	5		16 days from do	18 32
East Southampton and Ry. Station. Eastville and Upper Stewiacke	S. Ellis	102	$\frac{12}{6}$	12 12	do do		40 00 400 00
Economy Point and Main Post							
Road Eel Cove and Main Post Road	M. McLeod.	1	$\frac{6}{2}$	$\frac{12}{12}$	do		80 00
Eel Creek and Linden	H. Hunter	9 r. t.	3	12	do		77 12
Ellershouse and Newport	D. Harvey	6	$\frac{2}{2}$	3 9	do	(to June 30, '88). from do	21 25 45 00
do do Ellershouse and Railway Station	J. Johnson	50 yds	24	9	do	(to Dec. 31, '88).	75 00
do do	J. McDonald	50 yds	24	3		from do	12 50
Elmsdale and Nine Mile River Elmsdale and Railway Station	E. Thompson	80 vds	$\frac{1}{12}$	$\frac{12}{12}$			44 80 50 00
Emerald and Main Post Road	P. Tompkins	$3\frac{1}{2}$	1	12	do		20 00
Enfield and Oldhamdo	J. Mulally A. Meagher	3 3	6	3 9	do	(to June 30, '88). from do	13 75 41 25
Enfield and Railway Station	H. F. Donaldson	20 yds		12	do		50 00
Enfield and Railway Station Enfield and Renfrew	J. McKenzie	7	$\begin{vmatrix} 1\\2 \end{vmatrix}$	12 12	do		48 00 680 00
Englishtown and Ingonishe Erinville and Roman's Valley	P. E. Farrell	34	1	12	do		20 80
Eureka and Railway Station	H. Grant	4		12	do		50 00
Fairview Station and Rockingham Railway Station	J. McDonald	1	3	3	do	(to June 30, '88).	16 25
Fairview Station and Rockingham Railway Station		1		١.			
	IN Mallonald	1	3	9	do	from do	48 75

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Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.			Period.	Amount.
							\$ cts.
Falkland Ridge and Springfield Falmouth Station and Ry. Station. Falmouth Station and Upper Fal-	D. D. Starratt W. Armstrong		$\frac{1}{12}$	12 12	mon do	ths	29 48 47 00
mouth	L. Aker	10 r. t.	3	12	do	,	116 00
Cow Bay do do	H. Spencer		1 1	5 7	do do	(to Aug. 31, '88). from do	18 75 33 74
Farmington and West Branch River Philip	M. Chapman	12½r.t.	3	12	do		150 00
Fauxburg and Lunenburg Fifteen Mile Stream and Trafalgar. do do	E. Steverman W. D. McLean J. Nelson	$-6\frac{1}{2}$	1 1 1	12 6 6	do do	(to Sept. 30, '88). from do	65 00 52 00 71 50
	E. Largie N. McPherson	100 yds	6 12	12 12	do		75 00 40 00
Fort Lawrence and Railway Station Fort Lawrence and Upper Fort			12	12	do		100 00
Foster's and Newburn. Fouchie and Gaberouse. Fouchie and Grand River.	W. McDonald J. Morrison	$ \begin{array}{c c} 5\frac{1}{2} \\ 12 \\ 30 \end{array} $	3 1 3 3	12 12 12 12	do do do		60 00 25 00 210 00 299 00 24 00
Four Mile Brook and West River. Fox Harbor and Pugwash do do Framboise and North Framboise	S. P. Borden A. McQueen	$\begin{array}{ c c c }\hline & 11\frac{1}{2} \\ & 11\frac{1}{2} \\ & 5 \\ \hline \end{array}$	2 3 3 1	12 6 6 12	do do do	from do	63 74 75 00 30 00
Fraser's Grant and Heatherton French River and McGrath's Moun-			1	12	do		46 00
tain French Vale and North-West Arm. Gaberouse and Gaberouse Barachois Gaberouse and Gull Cove. Gaberouse and Sydney	B. Gouthro T. Bagnell A. Hardy	11/2	$\begin{array}{c} 1\\1\\2\\1\\3\end{array}$	12 12 4 12 12	do do do do	(from Dec. 1, '88)	$\begin{array}{c} 28\ 00 \\ 27\ 00 \\ 4\ 00 \\ 20\ 00 \\ 370\ 36 \end{array}$
Gaspereaux and Gaspereaux (circular route)			1	12	do		63 00
Gaspereaux and Newtonville Gaspereaux and Wolfville do do	W. A. Benjamin E. A. Davison	$egin{array}{c} 4 \ 2rac{1}{2} \ 2rac{1}{2} \end{array}$	1 3 3	12 12 2	do do	(from Feb. 1, '89)	20 00 51 00 7 50
Georges River and Little Bras d'Or Georgeville and Glebe Road Gilbert Cove and Railway Station. Gillander's Mountain and Middle	M. McDougall L. N. Thibeau	15 r.t. 3 ¹ / ₄	$\begin{array}{c} 1\\1\\12\end{array}$	12 12 12	do do		32 00 55 00 144 00
RiverGlen Bard and Railway StationGlendale and Mabou	J. McLean A. Boyd	11/2	$\begin{array}{c} 1 \\ 2 \\ 2 \end{array}$	12 12 12	do do do		20 00 30 00 393 00
Glendale and River Inhabitants Bridge Glendyer and Mabou	do W. McDonald	14 3	3 3	12 12	do do		230 00 40 00
Glenelg and Upper Cross Roads St. Marys. Glenelg and Waternish. Glengarry and Port Hood	J. McGrath K. McKenzie S. Campbell	4 4 8	3 1 1	12 12 12			$\begin{array}{c} 42 \ 48 \\ 20 \ 00 \\ 48 \ 72 \end{array}$
Glengarry Station and Pleasant Valley	A. McKay	27 r.t.	3 12	12 12	do do		235 44 50 00
Glen Margaret and Head of St.	G. Dauphin	12	6 6	12 6	do do	(to Sept. 30, '88).	340 00 101 24
Glen Margaret's and Peggy's Covedo doGlenshee and Merigomishe	D. Campbell	9	6 2	6 12	do	from do	$104 00 \\ 75 00$
Goff 's and Waverly	J. E. McDonald.	11	$\frac{1}{6}$	12 12	do do		$\frac{49\ 00}{135\ 00}$
Gore and Maitland	M. Tucker	20	3 3	$\frac{12}{12}$	do		375 00 350 00
Gore and Mount Uniacke. Gore and Newportdo	J. Murphy J. M. Hennesy .	41 r.t.	3 3	9 3	do	(to Dec. 31, '88). from do	222 75 80 00

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
						\$ cts.
Goreand Shubenacadie (via Blois Rd)	A. Densmore	40 r.t.	1	12 mor	ths	119 00
Gore and Shubenacadie (via North				40 7		
Salem)	do	42 r.t.	1 1	12 do 3 do	(to Tuno 20, '99)	127 00
do do	do	7 7	2		(to June 30, '88). from do	$\frac{10}{60} \frac{00}{00}$
Goshen and St. Andrews	A. McPherson	171	3	12 do		147 96
Grand Anse and Grandique Ferry	A. McDonald	3	6	9 do	(to Dec. 31, '88).	72 75
do do	N. McDonald	3	6	3 do	from do	23 50
Grandique Ferry and Lennox Ferry Grandique Ferry and West Arichat		10	6		(to Sout 20 200)	$\begin{array}{ccc} 600 & 00 \\ 245 & 00 \end{array}$
do do do	A. McDonald	10	6		(to Sept. 30, '88).	245 00
Grand Lake Station and Ry. Station	G. Nichols		12	12 do		20 00
Grand Narrows and Grand Narrows		J				
Rear	A. McDonald	5	1	12 do		25 00
Grand Pré and Long Island	A. Fullerton	$2\frac{1}{2}$	3	12 do		80 00
Grand Pré and Railway Station Grand Pré and Wellbrook		$2^{\frac{1}{2}}$	12 1			$100 \ 00$ $20 \ 00$
Grand River and St. Peters			6			600 00
Granton and Westville			2			99 00
Granville Ferry and Victoria Beach	W. A. Piggott	17	6	12 do		367 08
Great Village and Londonderry	D M TZ		7.0	10 1		900 00
StationGreat Village and Lower Five	D. M. Kent	4	12	12 do		300 00
Islands	J. W. Davison	291	6	12 do		620 00
Green Cove and Ingonishe.	D. Smith	6	2		(to Dec. 31, '88).	37 50
do do		6	2	3 do	from do	12 00
Greendale and Malignant Cove	J. W. Chisholm.	4	1	3 do	(to June 30, '88).	5 00
Greenfield and Middlefield	S. H. Tibert	5	2	3 do		12 00
do do Greenfield and Valley Station	J. E. Tibert	5 5}	$\frac{2}{2}$		from do	$\begin{array}{c} 36 \ 00 \\ 52 \ 48 \end{array}$
Green Hill and Westville	R. McCaul	64	3		(from July 1, '88)	84 00
'Green's Creek and Lower Stewiacke	A. Bigelow	30 r.t.	1	12 do		80 00
Greenville and Westchester	S. A. Purdy	16 r.t.	2	12 do		110 00
Greenville Station and Head of	T Dotton	177	9	12 do		188 00
Wallace Bay, North Side Greenville Station and North Green-	J. Dotten	17	3	12 do		100 00
ville		. 5	1	12 do		26 00
Greenville Station and Ry. Station	J. S. Forshner	50yds	12	12 do		60 00
Greenville Station and Wallace		17	6			280 00
Grosses Coques and Ry. Station	A. C. Melançon.	4	12			$\begin{array}{ccc} 240 & 00 \\ 100 & 00 \end{array}$
Grosvenor and Ry. StationGuysboro' and Heatherton	D D Harrington	$\frac{5}{26}$	3 6	12 do 12 do		1,378 00
Guysboro', Tor Bay and New Har-		20	,	LE do		2,0,0
bor	J. Tory	20&7	4&2	12 . do		390 50
Guysboro' and Salmon River Lake		10		0 1	(f T. 1 100)	40 05
Settlement		$\frac{13}{2}$	$\frac{3}{2}$	3 do 12 do	(from Jan. 1, '89)	$\frac{46}{31} \frac{25}{00}$
Hainsville and North Range Corner Half Island Cove and Port Felix	A. F. Ehler	26r t	$\frac{2}{2}$		(to Sept. 30, '88).	57 50
do do	do	128r t	2		(to Dec. 31, '88).	32 06
do do	W. Digdon	28r.t.	3	3 do		41 25
Halfway River Station and Harri-				10 1		00.40
son Settlement	W. Harrison	7	2	12 do		82 48
Halfway River Station and Ry Station	J. Davison	1 8	12	12 do		60 00
Halifax and Lower Prospect				-		
	white	$22\frac{1}{2}$	1	12 do		84 00
Halifax and Prospect	C. Purcell	21	$\frac{2}{2}$	6 do		95 00 69 50
Halifax and Ry. Station	J. Walsh	21	$\frac{2}{\text{As req}}$	6 do 12 do	from do	62 50 1,000 00
Halifax and Sambro	P. Scallion.	$21\frac{18}{2}$		12 do		165 00
Halifax and West River Sheet Har-						
bor	H. W. Quinn	80	3	12 do	1000.00	1,387 60
Halifax Post Office and Wharf					1888-89	342 00
do do do do	A. Conlon Sundry persons.				1888l strips	$\begin{array}{c} 82 & 00 \\ 2 & 50 \end{array}$
	7	^		пореста.	i surps	2 00
		U				

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
						\$ cts.
Hansford and Streets Ridge	A D Lookbart	14n +	6	19 mor	ths	200 00
Hansford and West Hansford	W. Sutherland	13	2	12 mor		25 00
Hantsport and Lockhartville	B. Nason	3	3	12 do		74 00
Hantsport and Ry. Station		$\frac{1}{16}$	$\begin{array}{c} 24 \\ 12 \end{array}$	$\begin{array}{ccc} 12 & \mathrm{do} \\ 12 & \mathrm{do} \end{array}$		68 00 78 00
Harbor au Bouche and Ry. Station. Harmony Mills and Westfield	R. Johnson	4	1	12 do		25 00
Head of Indian Harbor Lake and						
Sherbrooke	M. McGrath	41r.t.	$\begin{vmatrix} 3 \\ 2 \end{vmatrix}$	$\begin{bmatrix} 12 & \mathrm{do} \\ 6 & \mathrm{do} \end{bmatrix}$		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
	J. A. Blakeney		2		from do	37 50
Head of River Hébert and River						
Head of South River Lake and	B. Baird	5	3	12 do		120 00
Salmon River Lake Settlement	H. Kenney	15	1	12 do		37 80
Head of Tatamagouche Bay and		1				
Tatamagouche	W. Dobson	$\frac{5}{\frac{1}{2}}$	$\frac{3}{12}$	12 do		$117 00^{\circ} $ $140 00$
Heatherton and Summerside			1	12 do		27 73
Hebron and Ry. Station	C. Cahan	1	12			50 00
Hectanooga and Ry Station Hedgeville and Main Post Road	D. D. McQuarrie	50yds	$\frac{12}{2}$	12 do		40 00 21 00
Hemford and Pleasant River	J. Venot	7	1	12 do		30 00
Holland Harbor and Port Hillford.	G. Flick	3	3	12 do		40 00
Hopewell and Ry. Station		ĩ	6&3 12	12 do		768 92 85 00
Hopewell and Trafalgar	J. McDonald	18	3	12 dc		140 00
Hopewell and Trafalgar	F. G. Curry	4				75 00
Hubbard's Cove and Mill Cove Indian Point and Mahone Bay	J. W. Jollymore	4	1		l service	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Iron Ore and Sunnybrae	J. McDonald	4	1	12 mor		25 00
Isaac's Harbor and Isaac's Harbor				10 1		00.40
East Side Isaac's Harbor and Melrose			3 3	$\begin{array}{c c} 12 & dc \\ 12 & dc \end{array}$		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Isaac's Harbor East Side and New				12 ac	,	220 00
Harbor	A. McDonald	12	1	12 do		74 88
Jackson's and West Branch River Philip	M. Chapman	61	. 3	12 do		62 80
James River and James River Sta-	_	02		4		
tion	J. Chisholm	3	2	12 do		50 00
James River Station and Railway Station	J. McDonaid	100y s	12	12 do	• • • • • • • • • • • • • • • • • • • •	00 00
Jauvrin's Harbor and West Arichat			2	12 do		85 00
Johnson's Crossing and Ry. Station Jordan Bay and Shelburne	G. Riese	99 m t	$\frac{12}{3}$	12 do		50 00° 138 00°
Judique and Upper South-West			0	12 uc		100 00
Mabou	D. McDonnell	11	1.	12 do		50 00
Kempt and New Grafton Kempt Head and Upper Kempt	L. Kathrens	$3\frac{1}{2}$	1	12 do		28 00
Head	M. McKenzie	3	1	3 do	(from Jan. 1, '89)	6 25
Kennetcook Corner and Noël	J. A. O'Brien	20 r. t.	2	12 do		72 00
Kennington Cove and Louisburg Kerrowgare and Sunnybrae	J. McLean	6	1	12 do)	40 00:
ixerrowgare and Sunny Stae	ald	2	. 2	12 de		46 00
Kentville and Railway Station	J. E. Eaton	200 y's		12 do		150 00
Kewstoke and Whycocomagh Kingsbury and Lunenburg	A. McQuien	$\frac{7\frac{1}{2}}{31}$ r +	$\frac{1}{2}$	12 do		$\begin{array}{c} 35 & 00 \\ 322 & 60 \end{array}$
Kingston Station and Melvern Sq	W. Gates	$\frac{21}{2}$	6	12 do		98 00
Kingston Station and Ry. Station.	A.C. Vanbuskirk	: 100 y's	12	12 do		36 00
Kingston Station and Rhodes	T. Walker & J. Randall		2	12 de		40 00
Kingston Station and Tremont	A.C. Vanbuskirk	16 r. t.	2	12 de		125 00
Kolbeck and Oxford	T. R. Smith	16 r. t.	1	12 do		52 00
LaHave Island and West Dublin Lake Ainslie South Side and Lewis		5	1	12 do)	85 00
Mountain		4	1	12 do		16 00
	80		-			

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.			Period.	Amount.
							\$ cts.
Lake Annis and Railway Station			6		mon	ths	20 00
Lakelands and Railway Station	J. E. Brown	5	$\begin{vmatrix} 6\\2 \end{vmatrix}$	$\begin{vmatrix} 12 \\ 12 \end{vmatrix}$	do		60 00
Lake Ramsey and New Ross Lakevale and West Lakevale	A.J.McGillivray	3	4	12	do		$\frac{40}{48} \frac{00}{00}$
Lanesville and Lower Stewiacke	R. J. Pollock	16 r. t.	1	9	do	(to Dec. 31, '88)	33 75
Lapland and Newcomb Larry's River and Port Felix	S. Demon	18	$\frac{1}{2}$	12 12	do		51 00 100 00
Lawrencetown and Mineville	J. Conrad	5	ī	12	do		24 00
Lawrencetown and Mount Hanly,&c		38	1	12	do		110 00
Lawrencetown and Railway Station Lawrencetown and Torbrooke	H. T. James	33 r t	$\frac{12}{2}$	$\frac{12}{12}$	do		$74 00 \\ 105 00$
Lawrencetown and West Inglisville	G. C. Banks	8	ī	12	do		30 00
Lawrencetown and West Lawrence-	M II:14-	4	-	10	J.		90.00
town Learnington and Spring Hill Mines.	M. Hiltz G. Nelson	$\frac{4}{4}$	1 1	$\frac{12}{12}$	do do		20 00 17 48
Leitche's Creek and Upper Leitche's			-				
Creek	M. Beaton	5	1	12	do	/+- T 90 200\	$\begin{array}{c} 25 & 00 \\ 47 & 25 \end{array}$
Lewis Bay and Marion Bridge	D. J. McKeagan	315r.t.	3 3	3 9	do	(to June 30, '88). from do	173 25
Lewis Head and Sable River	W. Herkins	8	2	6	do	15 days to Oct.15,	2,0 20
T :	T 0'0-111	25 4		10	J.	'88	54 16
Lingan and SydneyLinwood and Railway Station	T. W. Kinney	55 r. t.	$\frac{6}{6}$	$\frac{12}{12}$	do		299 00 84 58
Little Bass River and Pleasant Hills	K. K. Linot	$\tilde{5}$	$\overset{\circ}{2}$	12	do		45 00
Little Bras d'Or and Long Island				10	,		F0.00
Main Little Bras d'Or and Point Aconi	N. O'Handley	$\begin{bmatrix} 6\\7 \end{bmatrix}$	1 1	$\frac{12}{12}$	do		50 00 50 00
Little Harbor and New Glasgow		6	$\frac{1}{3}$	12	do		74 00
Little Harbor and Reidway	J. R. Reid	4	1	12	do		20 00
Little Judique and Rear Little Judique	D. McMillan	4	1	12	do		20 00
Little River and Oxford	H. S Smith.,	4	2	12	do		47 00
Liverpool and Milton	J. F. Putnam	3	12	12	do		100 00
Liverpool and Port Medway Liverpool and Western Head	A. L. West	13 7	$\frac{3}{3}$	$\frac{12}{12}$	do		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Loch Broom and Railway Station.	R. McLeod		2	9	do	(from July 1, '88)	15 00
Loch Lomond and Red Islands	M. McKenzie	15	2	12	do		98 80
Loch Lomond and Sterling Loganville and West Branch River		7	1	12	do		29 00
John	S. Williamson	2	6	12	do		60 00
Louisburg and South Louisburg	M. McRury	$2\frac{1}{2}$	3	12	do		50 00
Lovat and West River	J. W. Fraser	$5^{\frac{1}{3}}$	$\frac{12}{3}$	$\frac{12}{12}$	do		50 00 109 00
Lower Caledonia, South Side, and				12	uo		10.7 00
Pietou Road	H. Chisholm		2	6	do	(to Sept. 30, '88)	37 50
Lower Cove and Maccan do do do	L. McDonald	$\begin{array}{c c} & 16 \\ \hline 16 \end{array}$	$\frac{6}{6}$	$\begin{vmatrix} 10 \\ 2 \end{vmatrix}$		(to Jan. 31, '89) from do	$\frac{490\ 00}{104\ 33}$
Lower Five Islands and Lynn	G. H. Lewis	6	2	12		nom do	40 00
Lower Five Islands and Parrsboro	J. W. Brodrick	13	6	12	do		340 00
Lower L'Ardoise and Point Michaud		4	1	12	do		19 00
Lower Meagher's Grant and Meagher's Grant	W. McCurdv	21	3	12	do		39 00
Lower Meagher's Grant and Mus-	1						F O. 00
quodoboit Harbor		14 22 r.t.	$\frac{1}{3}$	$\frac{12}{12}$	do		$\begin{array}{ccc} 70 & 00 \\ 220 & 00 \end{array}$
Lower Onslow and Truro Lower River Hébert and Maccan	C. Carter	91	3	12	do		141 08
Lower River Inhabitants and Port				1.			
Hawkesbury	A. Blair	13	3	12	do		165 00
Lower Ship Harbor East and Main Post Road		2	3	9	do	(from July 1, '88)	22 50
Lower South River Station and St.							
AndrewsLower Stewiacke and Ry. Station			$\frac{6}{12}$	12 12	do		$195 00 \\ 72 50$
Lower Stewiacke and Ramsay	W. Ramsay	5 8		12	do		25 00
	8.	1					

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.			Period.	Amount.
							\$ ets
Lower Stewiacke and Wittenburg do do Lower Wentworth and Wentworth	J. Crawford E. H. McGregor.	8 23 r.t.	2 & 1	91		hs.(to Dec. 31, '88) from do	45 00 29 25
StationLower West Jeddore and West	B. Stevens	8	3	12	do		, 69 00
JeddoreLower West Pubnico and Pubnico	L. Blackeney	3	1	12	do		20 00
HarborLunenburg and Second Peninsula	N. D'Entremont. E. Mason	7 5	$\begin{array}{c c} 3 \\ 1 \end{array}$	12 12	do do		124 00 40 00
McCallum Settlement and Upper North RiverMcCarthy's and Spry Bay	A. McCallum	3	3	11	do	(from May 1, '88)	36 66
McCarthy's and Spry Bay McPherson and Pinedale	J. McDonald	$\frac{2\frac{1}{2}}{5}$	$\frac{3}{2}$	$\frac{2}{12}$	do	(from Feb. 1, '89)	7 50 40 00
Mabou and Mabou Harbor Mouth Mabou and Sight Point	D. McDonald	5 16	$\frac{2}{1}$	$\frac{12}{12}$	do do		28 00 51 00
Mahone Bay and Northfield	A. Lohnes	16	1	6	do	(to Sept. 30, '88)	47 0
do do Main-à-Dieu and Scatarie Island	M. McCuish	$\frac{16}{9}$	1 1	$\frac{6}{12}$	do	from do	49 0 150 0
Maitland and Noël	J. Woodworth	12	6	12	do		274 0
Maitland and Shubenacadie Malagash Point and Wallace	A. S. Smith	30 r.t.	6 3	12 12	do		800 0 90 0
Malagawatch and River Dennis	K. McKenzie	14	2 3	12 12	do do		69 0 205 4
Malagawatch and West Bay Malignant Cove and Merigomishe	M. McNeil	$\begin{array}{c c} 16 \\ 22 \end{array}$	6	12	do		894 5
Manganese Mines and Valley Station Margaree Forks and Upper Settle-	J. Irving	$6\frac{1}{2}$	2	9	do	(from July 1, '88).	37 5
ment Middle River	T. Coady	18	2	6	do	(to Sept. 30, '88)	65 0
do do Margaretville and Middleton	N. McDaniel R. Woodbury	18 22 r.t.	2 3	$\begin{vmatrix} 6 \\ 12 \end{vmatrix}$	do	from do	$65 \ 0$ $149 \ 0$
Margaretville and Morden	J. Redgate	14	1	12	do		59 0
Marion Bridge and Trout Brook Marshalltown and Ry. Station	D. Lamond W Marshall	5 1\frac{1}{3}	$\frac{1}{12}$	$\frac{12}{12}$	do		33 3 97 0
Marshy Hope and Ry. Station	A. McDonald	$ 100\mathrm{y's} $	3	12	do		30 0
Marydale and St. Andrews Mattatall's Lake and Tatamagouche.			1 1	$\frac{12}{12}$	do		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Mavillette and Yarmouth Meiklefield and Sutherland's Mills.	N Bishop	20	6	12 12	do		374 0 38 0
Merigonishe and Railway Station	J. W. Dunn	1 3	$1 \\ 12$	1.2	do		96 0
Meteghan and Railway Station	E. E. Sheehan	$5\frac{1}{2}$	$\begin{array}{c c} 12 \\ 12 \end{array}$	$\frac{12}{12}$	do		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Meteghan Station and Ry. Station. Middle Musquodoboit and Moose							
River Gold Mines Middle Musquodoboit and Murchy		14	$\frac{2}{2}$	12	do		115 0 49 0
ville			2	12	do		48 0
comb Corner	G. McLeod	9	$\begin{bmatrix} 1 \\ 3 \end{bmatrix}$	$\begin{vmatrix} 12 \\ 12 \end{vmatrix}$	do		156 0
CornerMiddle River and West Side Middle	W. McCurdy		1	3	do	(to June 30, '88).	4 5
River	W. H. Nixon	43	6	9	do	(to Dec. 31, '88)	81 7
do do Middleton and Port George	do	13 r.t. 8	$\frac{6}{3}$	3	do	from do (to June 30, '88).	39 3 22 5
do	R. G. Anderson.	0	3	9	uo	from do	00 ,
Middleton and Railway Station Milford Station and Ry. Station	J. Gullivan	1 4	$\begin{array}{c c} 12 \\ 12 \end{array}$	$\frac{12}{12}$	do		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Mill Road and New Ross Minudie and River Hébert West	G. Ross	5	$\frac{1}{6}$	$\begin{array}{c} 12 \\ 12 \\ 12 \end{array}$	do do		40 0 315 0
SideMonk's Head and Pomquet Chapel	F. Boudroit	$\frac{2\frac{1}{2}}{2}$	2	3	do	(to June 30, '88).	7 5
do do Mooseland and Tangier	J. M. Prest	$13^{2\frac{1}{2}}$	3	9	do do	from do	33 7 50 0
Mooseland and Tangier	S. Balcom	3 25	1 3	$\frac{12}{7}$	do		24 0
Moser's River and West River Sheet Harbor		-3	3	1	uo	16 days, (from Aug., 16, 88).	375 0

Name of Route.								
Mount Denison and Ry, Station. Mount Denison and Ry, Station. Mount Denison and Ry, Station. Mount Thom Settlement and Salt Springs. A. McKay. 6 6 12 do 30 00 00 00 00 00 00 0	Name of Route.	of		No. of Trips per Week.				Amount.
Mount Denison and Ry, Station. Mount Denison and Ry, Station. Mount Denison and Ry, Station. Mount Thom Settlement and Salt Springs. A. McKay. 6 6 12 do 30 00 00 00 00 00 00 0								\$ cts
Mount Cusack and Sydney	Mr. A. L. David and Diana Talan	D II-14			110		.1.	
Mount Denison and Ry, Station. M. J. Shaw \$ 6 12 do 80 00								
Mount Uniacke and Mount Uniacke Gold Mines.	Mount Denison and Rv. Station	M. J. Shaw						
Mount Uniacke and Mount Uniacke Gold Mines W. Allen 4 3 6 do (to Sept. 30, '88). 30 00 do do J. Patriquin 4 3 6 do from do 30 00 do do E. Pentz 22 t. 2 6 do (to Sept. 30, '88). 60 00 do do E. Pentz 22 t. 2 6 do (to Sept. 30, '88). 60 00 do do E. Pentz 22 t. 2 6 do (to Sept. 30, '88). 60 00 do 50 00 do	Mount Thom Settlement and Salt		ľ					
Gold Mines	Springs.		6	2	12	do		70 00
do		W Allen	4	3	6	do	(to Sept 30 '88)	30.00
Mount Uniacke and Oland	do do	J. Patriquin	4					
Mount Uniacke and Ry. Station Musquodobiot Harbor and Petepse wick Harbor Musquodobiot Harbor and Pleasant Point R. J. Stevens H. Voung G S 12 do 65 00 66 00 00 00 00 00	Mount Uniacke and Oland	C. G. Oland	22 r. t.	2	6	do	(to Sept. 30, '88).	60 00
Musquodoboit Harbor and Petpeswick Harbor and Pleasant Point B. Young 6 3 12 do 65 00 Musquodoboit Harbor and Pleasant Point R. J. Stevens 11 2 12 do 80 00 Nappan Station and Ry. Station A. C. Barry 75yds 12 12 do 80 00 New Campbellton and North Sydney L. Kehoe 20 3 12 do 30 00 New Campbellton and West LaHave Ferry 4 1 1 1 2 do 30 00 New Camberland and Weymouth Bridges 4 1 1 2 do 34 00 30 00 New Glasgow and Pailway Station 4 2 2 do 38 48 New Glasgow and Thorburn F. Love 5 6 9 0 do (to Dec. 31, '88) 234 00 New Glasgow and Trachon A. M. Fraser 1 5 6 9 do (to Dec. 31, '88) 90 75 do New Glasgow and Tupper Cross 7 Fraser 43 3 12 do 30 do (to Dec. 31, '88) 90 75 do New Glasgow and Tupper Cross 7 Fraser 43 3 12 do 40 do								
Wisch (Harbor Arbor and Pleasant Point R. J. Stevens 11 2 12 20 0 110 00 Nappan Station and Ry. Station. A. C. Barry 75yds. 12 12 20 0 80 00 New Campbellton and New Harris D. Morrison. 5 1 12 20 0 340 00 New Campbellton and North Sydney L. Kehoe 20 3 12 20 0 340 00 New Cumbellton and North Sydney L. Kehoe 20 3 12 20 0 340 00 New Cumbellton and North Sydney L. Kehoe 20 3 12 20 0 340 00 New Cumbellton and North Sydney L. Kehoe 20 3 12 20 0 340 00 New Glasgow and Pictou Landing L. W. Church 9 6 9 00 (10 bec. 31, '88) 234 00 New Glasgow and Riverton A. A. M. Fraser. 14 20 20 00 42 12 20 0 437 48 New Glasgow and Thorburn F. Love 5 6 12 20 0 (10 bec. 31, '88) 90 75 0			135 y's		12	do		90 00
Musquodoboth Harbor and Pleasant Point P		B. Young	6	3	12	do		65 00
Point	Musquodoboit Harbor and Pleasant							
New Campbellton and New Harris D. Morrison 5	Point	R. J. Stevens	11					
New Cambbellton and North Sydney L Kehoe 20 3 12 do 340 00	Nappan Station and Ry. Station	A. C. Barry	75yds.					
New Cumberland and West LaHave Ferry .								
New Edinburgh and Weymouth Bridge	New Cumberland and West LaHave							
Section Sect	Ferry	H. Corkum	$9\frac{1}{2}$ r. t.	1	12	do		38 48
New Glasgow and Apictou Landing. J. W. Church. 9 6 9 do to 437 48 234 04 437 48 <th< td=""><td>New Edinburgh and Weymouth</td><td>A Dovoguy</td><td>51</td><td>9</td><td>19</td><td>do</td><td></td><td>55.00</td></th<>	New Edinburgh and Weymouth	A Dovoguy	51	9	19	do		55.00
New Glasgow and Railway Station Co	New Glasgow and Picton Landing	J. W. Church	94				(to Dec. 31, '88)	
New Glasgow and Thorburn	New Glasgow and Railway Station.	do	1					437 48
New Glasgow and Upper Cross Roads St. Marys J. Fraser 43 3 12 do 694 00 00	New Glasgow and Thorburn	F. Love	5					
New Glasgow and Upper Cross Roads St. Marys.	New Glasgow and Trenton	A. M. Fraser	15					
Roads St. Marys	New Glasgow and Upper Cross	J. W. Churen	15	0	3	ao	from do .	25 00
Newport and Newport Landing. J. Weir 17r. t. 4 12 do 190 00	Roads St. Marys	J. Fraser	43	3	12	do		694 00
Newport and South Rawdon. J. W. Hennesey. 24 1 12 12 12 12 12 13 13	Newport and Newport Landing	J. Weir	17 r. t.					
Newport and Upper Newport	Newport and Newport Station	W. Gibson	5					
Newport and Walton.	Newport and Huner Newport	do. W. Hennesey.	104					
New Ross and Stoddart's G. Ross. 26 2 12 do 139 00	Newport and Walton	E. A. Bancroft	20					
New Ross and Vaughan's B. Boylan 15 2 12 do	Newport Station and Ry. Station	L. H. Sweet	12yds.					
New New	New Ross and Stoddart's	G. Ross	26					
D. P. Young. 20yds. 12 3 do from do 2 50	New Ross and Vaugnan's Newville and Railway Station	C. W. Voung	20vzde					
Noël and Shubenacadie	do do	D P Voung	20vds					
North End Lochaber and West Side Lochaber.	Noël and Shubenacadie	J. W. Singer	32		12	do		
Lochaber.	Noël and Walton.	J. Murray	14	6	12	do		284 00
North Range Corner and Ry. Station C. B. McNeill 1/2 12 12 12 10 10 10 10 1			3	3	12	do		50.00
North Range Corner and South Range Corner and South Range Corner and South Range Corner and South Gut St. Ann's								
North River Bridge and South Gut St. Ann's A. G. Morrison. 14 2 6 do (from Oct. 1, '88). 54 08	North Range Corner and South		-					
St. Ann's	North Pivor Pridge and South Cut	J. E. Marshall	3	2	12	do		40 00
North River Bridge and Tarbut			14	2	6	dо	(from Oct. 1, '88).	54 08
South Side Grand Narrows								
North Sydney and Port Hastings North West Arm and Rear Ball's Creek	North Side Grand Narrows and				1.0			400.00
North West Arm and Rear Ball's Creek	South Side Grand Narrows	H. A. Archibald.						
Creek G. K. Ball 3	North West Arm and Rear Ball's	do .	01	0	12	ao		5,005 04
Norwood and Railway Station	Creek	(7. K. Ball	3	1	12	do		13 00
River	Norwood and Railway Station	D. A. Saunders	100 y's	6	12	do		30 00
Oakfield and Railway Station J. Ferguson \$\frac{1}{4}\$ 2 6 do (to Sept. 30, '88) 20 00 do (Double of the color of the	Nyanza and West Side Middle			,	0	de	(from Tuly 1 200)	96.95
do do H. D. McLeod \$\frac{1}{4}\$ 12 6 do from do 20 00 Oban and St. Peters R. Morrison 16 r. t. 2 12 do 70 00 Odin and Stewiacke Cross Roads S. Deyarmond 7\frac{3}{4}\$ 2 12 do 110 00 Old Bridgeport Mines and Main Post Road F. J. Mitchell 1 6 12 do 40 00	Oakfield and Railway Station	J. Ferguson					(to Sept. 30, '88)	
Oban and St. Peters R. Morrison 16 r. f. 2 12 do 70 00 Odin and Stewiacke Cross Roads S. Deyarmond 7\frac{3}{4}\$ 2 12 do 110 00 Old Bridgeport Mines and Main Post Road F. J. Mitchell 1 6 12 do 40 00	do do	H. D. McLeod	1					
Odin and Stewiacke Cross Roads S. Deyarmond 7\frac{3}{4} 2 12 do 110 00 Old Bridgeport Mines and Main F. J. Mitchell 1 6 12 do 40 00	Oban and St. Peters	R. Morrison	16 r. t.	2	12	do		
Post Road	Odin and Stewiacke Cross Roads	S. Deyarmond	74	2	12	do		110 00
			1	6	12	do		40.00
	Onslow Station and Railway Station	A. McCurdy						

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	Period.	Amount.
					\$ cts.
Outer Island Port Hood and Port					Ψ 005.
Hood	W. D. Smith	3	3	12 months	30 00
Oxford and Railway Station Oxford and Rockly	N. S. Thompson. J. A. Fraser	$\frac{3\frac{1}{2}}{11}$	$\frac{12}{1}$	12 do	400 00
do do	A. Cameron	11	1	3 do do	10 00
do do Paradise Lane and Railway Station	W. E. Burnside.	10	1 1	9 do from do 12 do	67 50 60 00
Paradise Lane and Roxbury	W. Gormlev	7	1	12 do	35 00
Parrsboro' and Partridge Island Parrsboro' and Railway Station	J. W. Jenks	$\frac{2}{1}$	$\frac{6}{12}$	12 do 12 do	100 00 50 00
Parrsboro and Three Sisters	E. D. Fullerton.	45	6	12 do	1,166 64
Parrsboro and Two Islands Pictou and Pictou Island	T. W. McKay	$egin{array}{c} 6rac{1}{2} \ 12 \end{array}$	$\begin{vmatrix} 2\\1 \end{vmatrix}$	12 do 12 do	65 00 255 00
Pictou and Pictou Landing	G. J. Christie	14	6	3 do (from Jan. 1, '89).	58 75
Pictou and Railway Station	W. McDonald	$20^{\frac{1}{4}}$	36	12 do	225 00 475 00
do do (via Shore).	D. M. Geldert	29	2	12 do	350 00
Pictou and Truro Pictou and West River Station	W. Gammon	50 23	3 3	12 do	895 00 103 00
do do	do	$25\frac{1}{2}$		8 do from do	228 37
do do Pietou and Wharf	D. Flynn	1 1		Season 1888-89	27 60
Piedmont Valley and Ry. Station. Pine Tree and Railway Station	R. Mitchell	15	3 3	12 months	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Pirate Harbor and Railway Station.	R. Peeples	1 2	12	12 do	80 00
Pleasant Valley and Ry. Station Plympton and Railway Station	J. L. Warner	$\frac{1^{\frac{1}{2}}}{3}$	$\frac{2}{12}$	12 do	50 00 140 00
Point Edward and Sydney	D. Beaton	8	1	12 do	40 00
Pomquet Chapel and Ry. Station Point Acadie and Railway Station.	V. Thibodeau	$\frac{2}{2\frac{1}{2}}$	$\frac{6}{12}$	12 do	70 00 150 00
Port Beckerton and Port Hillford	G. S. Taylor	8	1	12 do	52 00
Porter's Lake and West Chezzet- cook		3	3	12 do	40 00
Port Hastings and Port Hawkes-					
buryPort Hastings and Railway Wharf.	A. McDonald	$3\frac{1}{2}$		12 do	220 00 156 00
Port Hastings Railway Wharf and					
Port Hawkesbury	A. McDonald			42 trips	42 00 156 00
do do	A. A. Beaton	1 1	Asreg	Season 1888	26 60
Port Hawkesbury and Steamer Port Hawkesbury and Sydney	A. McDonald	100	Asreq	$egin{array}{cccc} ext{do} & \dots & $	15 00 5,724 88
Port Hawkesbury Railway Wharf		100			
and Point Tupper	A. McDonald	1 15		Season 1888	67 80 24 00
Port Hood and Port Hood Island Port Joli and St. Catherines River.	L. Robertson	$\frac{1}{6}$	ī	12 do	40 00
Port Matoon and South West Port Matoon	C Thérien	4	1	12 do	25 00
Port Mulgrave and Ry. Wharf	R. Trites	1 5	12	12 do	80 00
Port Philip and Pugwash Pert Royal and West Arichat	G. King	$\frac{4\frac{1}{2}}{3}$	3 3	12 do	60 00 100 00
Port Williams and Port Williams		Í	0		
Station Port Williams and Town Plot	J. L. Bishop	1	6	12 do	70 56 55 00
Port Williams Station and Railway		$2\frac{1}{2}$		12 do	
Station Port Williams Station and White	F. E. Forsyth	12 yds.	24	12 do	62 60
Rock Mills	W. O. Bishop	$4\frac{1}{2}$	3	3 do (to June 30, '88).	16 75
Port Williams Station and White	T. I. Bishan			9 do from do	50 25
Rock Mills Preston and Main Post Road	J. L. Bishop D. Deloughey			12 do	60 00
Princeport and Truro	J. Yuill	16 r. t.	6	3 do (to June 30, '88)	68 02 180 00
do do	J. D. Nelson J. R. Lamy	15 r. t.		9 do from do 12 do	461 88
Quinan and Tusket	L. Porter	12	2	12 do	90 00

		-					
Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amoun	ıt.
						\$	nte
Dan Dlada Disson and West Dan	M Mamiaan	10 4	-	C	+1- /+- C+ 20 200)	19	
Rear Black River and West Bay do do	do	4	$\frac{1}{2}$		ths (to Sept. 30, '88) from do	35	
River Bourgeoise and River Tear	J. Murphy		6	12 do		119	
River Hebert, West Side, and Shulie	B. Baird	10 14	$\begin{vmatrix} 1\\3 \end{vmatrix}$	12 do 12 do	• • • • • • • • • • • • • • • • • • • •	$\frac{40}{273}$	
River Inhabitants Bridge and West		-	e	10 1-		1.15	00
Bay	J. McLeod	5 13	$\begin{vmatrix} 6 \\ 6 \end{vmatrix}$	$\begin{vmatrix} 12 & do \\ 12 & do \end{vmatrix}$		145 400	
River John and Welsford River Philip Station and West	D. McGillivray.	3	3	5- do		16	66
Branch River Philip	M. Chapman	5	6	12 do		180	00
Riversdale and Railway Station	B. A. Wall	1 10	$\frac{12}{2}$		iths	44 163	
Riversdale and Upper Kemptown Rockingham and South Ohio	J. E. Allen	20	3			225	
Rockingham Station and Ry. St'n	T. Payne	1 12	12			40	
Roman's Valley and St. Andrews Round Hill and Railway Station	C. E. Spurr	15	$\frac{3}{12}$			177 50	
St. Andrews and Vernal	L. Cameron	5	2	12 do		53	
St. Peters and West Bay Sable River and Swansburg	W. Herkins	28 10½	3 3	12 do 5 do		285	00
		_			Oct. 15, '88)		66
Salem and Yarmouth	A. Bain	2	6	10 do	(to Jan. 31, '89)	37	50
Passage	W. C. Wambold.		2	12 do		128	
Salt Springs Station and Ry. Stat'n	J. W. Black	20 yds 20 r t	$\frac{12}{2}$	12 do 12 do		$\frac{20}{123}$	
Sandford and Yarmouth	E. J. White		. 2	1 do	(to April 30, '88). (to Oct. 31, '88).	9	58
do dodo	do	$\frac{7}{7}$	$\frac{3}{2}$	6 do 5 do	(to Oct. 31, '88) from do	82 47	50 91
Saulnierville and Railway Station.	T. Saulnier	13	12	12 do		100	00
Scotch Village and Woodville Shad Bay and (White's) Pr'spe't R'd	S. Cochrane	10 r.t. 2	$\frac{1}{2}$	12 do 3 do	27 dys. (to July	45	00
					27, '88)	4	85
do Shelburne and Upper Ohio	W G Swines-	2	4	8 do	4 dys. (from July 28, '88)	20	35
	burg	36 r.t.	1	12 do		78	00
Shelburne and Yarmouth Sherbrooke and West River, Sheet	O. S. Davison	70	6	9 do	(to Dec. 31, '88)	1,425	00
Harbor	J. Cumminger	60	3	12 do		800	00
Ship Harbor Lake and Ship Harbor Lake (Circular Route)	J W Webber	23 r t	1	12 do		100	00 :
Shubenacadie and Railway Station.	A. Kirkpatrick .	100 yd	30	12 do		100	00
Six Mile Brook and West River Six Mile Road and Wallace Grant.	J. McKay	$\frac{6}{5}$	$\frac{2}{3}$			30 60	
Skye Mountain and Whycocomagh.	A. G. Nicholson	6	1	12 do		30	00.
			1	12 do		25	00
Sluice Point and Surette Island Sluice Point and Tusket	Norden	6	1			51	
Southampton and Railway Station.	J. Megeny	34	$\frac{12}{3}$			115 100	
South Branch and Upper Stewiacke South Farmington and Ry. Station.	D. E. McGregor	13 1.6.	12	12 do		70	
South Gut, St. Ann's, and Tarbut South Harbor and White Point	A. G. Morrison.	14 9	$\frac{2}{2}$		(to Sept. 30, '88).	54 95	
South Merland and Tracadie	M. Delorey	8	1	12 do 12 do		34	
South Ohio and Railway Station	W. Crosby	1/8	12	12 do		40	00
South West Margaree and Upper Margaree.	J S McDonald	4	2	12 do			48
Spring Hill Junct'n and Ry. Station	J. A. Dunn		12	12 do			00
Spring Hill Mines and Ry. Station.	J. Anderson	81212	18	9 do 3 do		101 45	20
Spring Hill Mines and Windham		_					
Hill	J. Bartley	1 1	$\frac{2}{36}$	$\begin{vmatrix} 12 & do \\ 12 & do \end{vmatrix}$		$\frac{80}{225}$	00
Strathlorne and Whycocomagh	N. McMillan	49 r.t.	2	12 do		250	00-
Tatamagouche and Waugh's River.	J. Lombard		3	12 do	***********	140	00

Name of Route.									
Tatamagouche and Wentworth St'n A. Purdy 20 6 12 months 440 00 163 00	Name of Route.	of .		No. of Trips per Week.			Period.	Amour	nt.
Tatamagouche and Wentworth St'n A. Purdy 20 6 12 months 440 00 163 00								\$	ets
The Falls and West New Annan D. C. Byers 9 3 12 do 163 00 163 00 160 00 1	Tatamagouche and Wentworth St'n	A Purdy	20	6	12 n	on	ths		
Thorpurn and Merigonishe Station	The Falls and West New Annan	D. C. Byers	9						
Commons Comm	Thompson's Mills and Westchester.	F. J. Purdy	13	2					
Torbrooke and Tremont.	Thorburn and Merigonishe Station	H. McDonald	5				(to Sept. 30, '88).		
Tracade and Railway Station	Torbrooke and Tremont	W Brown	5						
Trafalgar P. O. (old site) and Trafalgar P. O. (new site).	Tracadie and Railway Station	P. Delorey.	1 1						
Truro Railway Station and Street Letter Boxes.	Trafalgar P. O. (old site) and Tra-			1.2		CLO		00	00
Letter Boxes.	falgar P. O. (new site)	J. McDonald	2	2	12	do		26	00
Truro Railway Station and Street Letter Boxes C. B. Archibald 60&18 7 do from do 233 33	Truro Railway Station and Street	T O MEN		00 0 10	~	1	(I A 94 100)	F-~	00
Letter Boxes	Trumo Pailway Station and Street	J. G. Miller		60 & 18	5	do	(to Aug. 31, 88).	75	00
Tupper Ville and Railway Station. D. S. Chipman. \$\frac{1}{4}\$ 12 12 do (to May 31, '88). 31 22 do (to May 31, '88). 31 22 do (to May 31, '88). 31 23 do (to May 31, '88). 32 do (to May 31, '88). 33 do (to May 31, '88). 34 do (to May 31, '88	Letter Boxes	C B Archibald		60 & 18	7	dо	from do	233	33
Tusket Wedge and Yarmouth B. Le Blanc 12 3 2 do (to May 31, '88). 31 2t do 2t do 4t	Tupperville and Railway Station	D. S. Chipman	1						
Co	Tusket Wedge and Yarmouth	B. Le Blanc	12	3	2		(to May 31, '88)		
River Sheet Harbor	do do	do	12	6	10	do	from do	166	66
Upper Newport and Woodville	Upper Musquodoboit and West	T A T	90	9	10	d.		200	00
Valley Station and Railway Station M. Johnson. 600 y's 12 12 do 40 0 Waterville and Railway Station. J. S. Pineo. 70 y's 12 12 do 50 0 Waterville and South Waterville. F. Parrish. 11 r. t. 1 12 do 32 0 Waverley and Windsor Junction. J. Otto. 3 6 12 do 32 0 Wentworth Creek and Windsor. J. Trider, sr. 2½ 3 12 do 70 00 Wentworth Station and Railway Station. A. Barclay. 135 y's 12 12 do 60 00 Westbrook and Railway Station. J. C. Taylor. 1 12 12 do 104 00 104 00 Westbrook Mills and Railway Station. S. Roscoe. 1 12 12 do 100 0 100 0 West River and Westville. J. Munro. 9 3 3 do (to June 30, '88). 45 00 West River Station and Railway Station. J. Maxwell. ½ 24 12 do 40 00 Weymouth Bridge and Railway Station. J. Dones. 1½ 12 12 do 120 0 100 0 Weymouth and Railway Station. G. J. Hoyt. ½ 24 12 do 120 0 120 0 Windsor Junction—I. C. Ry. and W. McSara. P. Hessian. ½ 36 12 do 80 0 Winds	Upper Newport and Woodville	E Sweet	11						
Waterville and Railway Station. J. S. Pineo. 70 y's 12 12 do 50 00 Waterville and South Waterville. F. Parrish. 11 r. t. 1 12 do 32 00 Waverley and Windsor Junction. J. Otto. 3 6 12 do 130 00 Wentworth Creek and Windsor. J. Trider, sr. 2½ 3 12 do 70 00 Wentworth Station and Railway Station. J. C. Taylor. 1 12 12 do 60 00 Westbrook and Railway Station. J. C. Taylor. 1 12 12 do 100 00 West Merigonishe and Railway Station. J. R. McDonald. 1 6 12 do 40 00 West River and Westville. J. Munro. 9 3 3 do (to June 30, '88). 45 00 West River Station and Railway Station. D. Graham. 75 y's 12 12 do 40 00 Weymouth Bridge and Railway Station. D. Graham. 75 y's 12 12 do 40 00 Weymouth Bridge and Railway Station. G. J. Hoyt. 1 12 12 do 40 00 Windsor Junction and Railway Station. P. Burnham. 1 12 12 do 40 00 Windsor Junction—I. C. Ry. and W. & A. Ry. W. Herbert. 20	Valley Station and Railway Station	M. Johnson	1600 v's	12					
Waterville and South Waterville. F. Parrish. 11 r.t. 1 12 do 32 00 Waverley and Windsor Junction. J. Otto. 3 6 12 do 130 00 Wentworth Creek and Windsor. J. Trider, sr. 2½ 3 12 do 70 00 Wentworth Station and Railway Station. A. Barclay 135 y's 12 12 do 60 00 Westbrook Mills and Railway Station. J. C. Taylor. 1 12 12 do 100 00 West Merigonishe and Railway Station. J. R. McDonald. 1 6 12 do 40 00 West River and Westville. J. Munro. 9 3 3 do (to June 30, '88). 45 00 Westville and Railway Station. D. Graham. 75 y's 12 12 do 40 00 Weymouth Bridge and Railway Station. C. D. Jones. 1½ 24 12 do 120 00 Weymouth Bridge and Railway Station. E. Cumminger. 1½ 12 12 do 40 00 Wilmost and Railway Station. P. Burnham. ½ 24 12 do 20 00 Windsor Junction—I. C. Ry. and W. & A. Ry. W. Herbert. 20 y's 6 12 do 60 00 Woodbourne and Railway Station. T. J. Christison. 1½ </td <td>Waterville and Railway Station</td> <td>J. S. Pineo</td> <td>70 y's</td> <td>12</td> <td></td> <td>do</td> <td></td> <td></td> <td></td>	Waterville and Railway Station	J. S. Pineo	70 y's	12		do			
Wentworth Creek and Windsor J. Trider, sr 2½ 3 12 do 70 00 Wentworth Station and Railway Station A. Barclay 135 y's 12 12 do 60 00 Westbrook and Railway Station J. C. Taylor 1 12 12 do 104 00 Westbrook Mills and Railway Station S. Roscoe 1 12 12 do 100 00 West Merigonishe and Railway Station J. Munro 9 3 3 do (to June 30, '88). 46 00 West River and Westville J. Munro 9 3 3 do (to June 30, '88). 46 00 West River Station and Railway Station J. Maxwell ½ 24 12 do 40 00 Weymouth Bridge and Railway Station C. D. Jones 1½ 12 12 do 156 00 Windsor Junction and Railway Station E. Cumminger 1½ 12 12 do 40 00 Windsor Junction—I. C. Ry. and W. & A. Ry. A. Bain ½ 24 12 do 80 00 Windsor Junction—I. C. Ry. and W. & A. Ry. M. Herbert 20 y's 6 12 do 60 00 Woodbourne and Railway Station T. J. Christison 1½ 24 12 do 60 00 60 00 Yarmouth and Railway Station T. J. Christison 1½ 24 12 d	Waterville and South Waterville	F. Parrish	11 r.t.						
Westbrook and Railway Station	Waverley and Windsor Junction	J. Otto	3						
Station	Wentworth Station and Railway	J. Irider, sr	22	3	12	ao	• • • • • • • • • • • • • • • • • • • •	10	UU
Westbrook Mills and Railway Station J. C. Taylor 1 12 12 do 104 00 Westbrook Mills and Railway Station S. Roscoe 1 12 12 do 100 00 West Merigonishe and Railway Station J. R. McDonald 1 6 12 do 40 00 West River and Westville J. Munro 9 3 3 do (to June 30, '88) 45 00 West River Station and Railway Station D. Graham 75 y's 12 12 do 40 00 Westville and Railway Station J. Maxwell \$\frac{1}{2}\$ 2d 12 do 120 00 Weymouth Bridge and Railway Station C. D. Jones 1\frac{1}{2}\$ 12 do 156 00 Windsor Junction and Railway Station P. Hossian \$\frac{1}{2}\$ 2d 12 do 280 00 Windsor Junction—I. C. Ry. and W. & A. Ry. A. Ry. A. Bain \$\frac{1}{2}\$ 2d 12 do 60 00 Woodbourne and Railway Station	Station	A. Barclay	135 v's	12	12	do		60	00
S. Roscoe	Westbrook and Railway Station							104	00
West Merigonishe and Railway Station		~ ~							
Station	tion	S. Roscoe	1	12	12	do		100	00
West River and Westville	Station Station	I R McDonald	1	6	19	do		40	00
West River Station and Railway Station. D. Graham 75 y's 12 l2 do 40 00 Westville and Railway Station. J. Maxwell. \$\frac{1}{2}\$ 24 l2 do 120 00 Weymouth and Railway Station. C. D. Jones. \$\frac{1}{2}\$ 12 l2 do 156 00 Weymouth Bridge and Railway Station. G. J. Hoyt. \$\frac{1}{2}\$ 12 l2 do 40 00 Wilmot and Railway Station. E. Cumminger. \$\frac{1}{2}\$ 24 l2 do 95 00 Windsor Junction and Railway Station. P. Burnham. \$\frac{1}{2}\$ 24 l2 do 280 00 Windsor Junction—I. C. Ry. and W. & A. Ry. do 20 y's 6 l2 do 80 00 Wolfville and Railway Station. G. V. Rand. \$\frac{1}{2}\$ 24 l2 do 60 00 Woodbourne and Railway Station. T. J. Christison. \$\frac{1}{2}\$ 24 l2 do 100 00 Yarmouth and Railway Station. A. Bain. \$\frac{1}{2}\$ 24 l2 do 100 00 Yarmouth and Street Letter Boxes. A. J. Hood. 12 9 do (from July 1, '88) 90 00	West River and Westville.	J. Munro	9				(to June 30, '88).		
Westville and Railway Station J. Maxwell 1 2 4 12 do 120 00 Weymouth and Railway Station C. D. Jones 1 1 2 12 do 156 00 Weymouth Bridge and Railway Station G. J. Hoyt 1 1 2 12 do 40 00 Wilndsor and Railway Station E. Cumminger 1 1 12 12 do 95 00 Windsor Junction and Railway Station P. Burnham 1 2 12 do 280 00 Windsor Junction—I. C. Ry. and W. & A. Ry D. Hessian 1 3 6 12 do 80 00 Windsor Junction—I. C. Ry. and W. & A. Ry W. Herbert 20 y's 6 12 do 60 00 Wolfville and Railway Station G. V. Rand 1 2 2 2 2 do 60 00 60 00 Woodbourne and Railway Station A. Bain 1 2 2 2 do 50 00 Yarmouth and Railway Station A. Bain 1 2 2 2 do 50 00 Yarmouth and Street Letter Boxes. A. J. Hood 1 2 9 do (from July 1, '88) 90 00	West River Station and Railway	0.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1					(00 0 00, 00).		
Weymouth and Railway Station C. D. Jones 1½ 12 do 156 00 Weymouth Bridge and Railway Station G. J. Hoyt ½ 1½ 12 do 40 00 Wilmot and Railway Station Burnham ½ 1½ 12 do 280 00 Windsor Junction and Railway Station P. Burnham ½ 24 12 do 280 00 Windsor Junction—I. C. Ry. and W. & A. Ry D. Hessian ½ 36 12 do 80 00 Windsor Junction—I. C. Ry. and W. & A. Ry W. Herbert 20 y's 6 12 do 60 00 Wolfville and Railway Station G. V. Rand ½ 24 12 do 60 00 Woodbourne and Railway Station T. J. Christison ½ 24 12 do 50 00 Yarmouth and Railway Station A. Bain ½ 1½ 2 12 do 50 00 Yarmouth and Street Letter Boxes. A. J. Hood 12 9 do (from July 1, '88) 90 00	Station	D. Graham	75 y's						
Weymouth Bridge and Railway Station G. J. Hoyt ‡ 12 12 do 40 00 Wilmot and Railway Station E. Cumminger 1‡ 12 12 do 95 00 Windsor Junction and Railway Station P. Burnham ½ 24 12 do 280 00 Windsor Junction—I. C. Ry. and W. & A. Ry. P. Hessian ‡ 36 12 do 80 00 Windsor Junction—I. C. Ry. and W. & A. Ry. W. Herbert. 20 y's 6 12 do 60 00 Wolfville and Railway Station. G. V. Rand. ‡ 24 12 do 60 00 Woodbourne and Railway Station. T. J. Christison. 1½ 21 2 do 50 00 Yarmouth and Railway Station. A. Bain ½ 12 do 50 00 Yarmouth and Street Letter Boxes. A. J. Hood 12 9 do (from July 1, '88) 90 00	Westville and Railway Station	J. Maxwell	1 4						
Station	Weymouth Bridge and Bailway	C. D. Jones	15	12	12	ao		196	UU
Wilmot and Railway Station E. Cumminger 1 1 2 12 do 95 00 Windsor Junction and Railway Station P. Burnham 1 2 4 12 do 280 00 Windsor Junction—I. C. Ry. and W. & A. Ry P. Hessian 1 8 36 12 do 80 00 Windsor Junction—I. C. Ry. and W. & A. Ry do 20 y's 6 12 do 60 00 Wolfville and Railway Station G. V. Rand 20 y's 6 12 do 60 00 Woodbourne and Railway Station G. V. Rand 20 y's 6 12 do 60 00 Yarmouth and Railway Station T. J. Christison 1 2 do 50 00 Yarmouth and Street Letter Boxes A. J. Hood 12 9 do (from July 1, '88) 90 00	Station	G. J. Hovt.	1	12	12	do		40	00
Windsor and Railway Station P. Burnham 1/2 24 12 do 280 06 Windsor Junction—I. C. Ry. and W. & A. Ry. P. Hessian 1/8 36 12 do 80 06 Windsor Junction—I. C. Ry. and W. & A. Ry. W. Herbert 20 y's 6 12 do 60 06 Wolfville and Railway Station G. V. Rand 1/8 24 12 do 60 06 Woodbourne and Railway Station A. Bain 1/4 2 12 do 50 00 Yarmouth and Railway Station A. Bain 1/2 12 12 do 149 00 Yarmouth and Street Letter Boxes A. J. Hood 12 9 do (from July 1, '88) 90 00	Wilmot and Railway Station	E. Cumminger	14						
tion P. Hessian 1/8 36 12 do 80 00 Windsor Junction—I. C. Ry. and W. & A. Ry. do 20 y's 6 12 do 60 00 Wolfville and Railway Station G. V. Rand. 20 y's 6 12 do 60 00 Woodbourne and Railway Station T. J. Christison 1/5 2 12 do 100 00 Yarmouth and Railway Station A. Bain 1/5 2 12 do 50 00 Yarmouth and Street Letter Boxes A. J. Hood 12 do 12 do 149 00	Windsor and Railway Station	P. Burnham	1 2	24	12	do		280	00
W. & A. Ry.	Windsor Junction and Railway Sta-	D II :	,	0.0	10	a .		00	00
W. & A. Ry.	Windson Tunction T C Dr and	P. Hessian	8	36	12	αo		80	00
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	W & A Ry	do	20 77'9	6	12	do		. 60	00
W. & A. Ry. W. Herbert. 20 y's 6 12 do 60 00 Wolfville and Railway Station. G. V. Rand. 1 24 12 do 100 00 Woodbourne and Railway Station. T. J. Christison. 1 2 12 do 50 00 Yarmouth and Railway Station. A. Bain. 1 12 12 do 12 do Yarmouth and Street Letter Boxes. A. J. Hood. 12 9 do (from July 1, '88) 90 00	Windsor Junction—I. C. Rv. and					40		00	-00
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	W. & A. Ry	W. Herbert	20 y's						
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Wolfville and Railway Station	G. V. Rand	18						
Yarmouth and Street Letter Boxes. A. J. Hood 12 9 do (from July 1, '88) 90 00	Woodbourne and Railway Station	T. J. Christison.	15						
	Varmouth and Street Letter Roves	A. J. Hood	2				(from July 1, '88)		
Total	Land of the Dorest Detter Doxes.	11. 0. 1100d		12		40	(1.011 0 ary 1, 66)		
							Total	\$122,126	16
					l				

WILLIAM WHITE,
Deputy Postmaster-General.

W. H. SMITHSON,
Accountant.

DETAIL of all payments for Mail Transportation in Nova Scotia, made within the Year ended 30th June, 1889. CONVEYANCE OF MAILS BY STEAMBOATS AND SAILING VESSELS.

Amount.	\$ cts. 5,500 00 300 00 228 60 2,100 00 100 00 500 00 1,875 00 1,218 00 2,19 51 867 66
Period.	6 12 months (to March 31, 1889, and extra trips). 1 & 6 do
No. of Trips per Week.	1 & Fortnight Fortnight
Distance in Miles.	26 & 40 400 520 520 520 520 72 439 117 77 & 117 75 & 108 40,30 & 25
Name of Contractor.	G. E. Corbitt. W. H. Cook. Bras d'Or Steam Navigation Co. cted). J. F. Phelan & Son, Agents F. D. Corbett & Co. A. C. Ross. Anglo-French Steamship Co. F. W. Fraser. Bras d'Or Steam Navigation Co. R. Macdonald. R. Macdonald. Yarmouth Steamship Co. T. Yarmouth Steamship Co. R. Wacdonald.
Name of Route.	Annapolis and Digby Barrington Passage and Yarmouth East Bay, Grand Narrows and Sydney. Halifax and Boston, U.S. (portion of postage collected). J. F. Phelan & Son, Agents. North Sydney and Sydney. Halifax and St. Pierre Halifax and St. Pierre C. Ross Halifax and St. Pierre Apply Co. Pricton, Mabou and Port Hood, &c. Pricton, Mabou and Port Hood, &c. Port Mulgrave, Anichat and Canso, &c. Port Mulgrave, Anichat and Canso, &c. Port Mulgrave, Anichat and Canso, &c. R. Macdonald F. Macdonald F. W. Fraser F. W. Fraser Port Mulgrave, Anichat and Canso, &c. Port Mulgrave, Anichat and Canso, &c. Port Mulgrave, Port Mulgr

WILLIAM WHITE,
Deputy Postmaster-General.

W. H. SMITHSON, Accountant,

N.B.—For Special Mail Subsidies and Steamship Subventions, see page 9.

DETAIL of all payments for Mail Transportation in Nova Scotia, made within the year ended 30th June, 1889. CONVEYANCE OF MAILS BY RAILWAYS.

Cumberland Railway and Coal Co		in Miles.	No. of Trips per Week.			Pe	Period.	Amount.
Rectrage)		32	9	12 mo	nths (to	31st Marc	12 months (to 31st March, 1889)	\$ cts.
Scotia) 196 With varying frequency over different sections of the line 15 do	llway (including ferriage)	80		12	ol	op		5,793 60
67 line	(within Nova Scotia)	196	With varying frequency over different sections of the					
	lway Co	29	line6	22	6 (to	30th June 31st Marc	(to 30th June, 1889, and arrears) (to 31st March, 1889)	33,810 00 3,344 64
Windsor and Annapolis Railway Co 130 6 12 do	is Railway Co	130	9		2	op		8,261 76
88						Total		\$52,102 32

WILLIAM WHITE, Deputy Postmaster-General.

Accountant.

W. H. SMITHSON,

DETAIL of all payments for making and repairing Mail Bags, Mail Locks, &c., in Nova Scotia, made within the Year ended 30th June, 1889.

Tradesmen's Names.	Particulars of Disbursements.							Amount.	
•							\$	cts.	
S. & H. Borbridge	Mail bags,	labels and re	pairs for P	ost Offi	ce Depar	tment.	528	79	
E. Chanteloup	Mail locks	and keys for			do		15	75	
Miller Lock Co	do	do			do		7	80	
Smith & Egge Manufacturing Co	do	do			do		3	50	
T. Forhan & Co	Repairing 1	mail bags for	Postmaste	er, Hali	fax		15	66	
H. B. Fidler	do		do	do			14	40	
		Total.					\$585	90	

WILLIAM WHITE,

Leputy Postmaster-General.

W. H. SMITHSON,
Accountant.

PROVINCE OF NEW BRUNSWICK.

Detail of all payments for Mail Transportation in New Brunswick, made within the year ended 30th June, 1889.

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
						O oto
						\$ cts.
Acadie, Acadie Siding and Railway	S Legère	10	2	12 mon	ths	99 00
Station	J. M. Kennedy.	10				40 00
Albert and Elgin	J. Garland	$26^{\frac{1}{16}}$	1		trips	208 00
Albert and Harvey Bank	R. Smith			Special	trips	2 50
Adamsville and Railway Station. Albert and Elgin. Albert and Harvey Bank. do Albert and Hopewell Hill. Albert and Lumsden. Albert and Point Wolf.	N. C. Atkinson				lo	0 50 0 50
Albert and Lumsden	B. W. Filmore	7	1	12 mon	ths	28. 25
Albert and Point Wolf	J. Fletcher	20	6	6 do	(to Sept. 30, '88).	233 50
do do	A. Copp R. C. Atkinson	20 20	$\begin{vmatrix} 6 \\ 6 \end{vmatrix}$	6 do	from do	295 04 33 00
Albert and Railway Station	do	20	12	12 mon	ths	75 00
Albert Mines and Railway Station.	G. Woodworth	1 4	12	12 do		30 00
Albert and Railway Station. Albert Mines and Railway Station. Aldouane and Richibucto. Alexander's Point and Lameque	P. Richard	8	2	12 do	/f T T 1 1000	46 48
Alexander's Point and Lameque Alexander's Point and Miscou Light	C. Chiasson	$3\frac{1}{2}$	1	9 do	(from July 1, '88)	18 75
House	C. Vibert	26	2	12 do		285 00
			3	12 do		150 00
Alexandrina and Notre Dame	A. L. Hébert	4	1	12 do		20 80
Allandala and Poquiock	D. Connelly	9 6	1 1			55 00 35 00
Alma and Hastings	J. E. McQuaid.	4	1	12 do		26 00
Anagance and Corn Hill	S. L. Stockton	6	$\frac{2}{2}$	12 do		68 00
Anagance and Elgin	E. A. Robinson.	18		12 do		144 00
Alexander's Point and Snippigan. Alexandrina and Notre Dame. Alison and Moncton. Allandale and Poquiock. Alma and Hastings. Anagance and Corn Hill. Anagance and Elgin. Anderson and Upper Sackville. Andover and Fort Fairfield, U.S. Andover and Railway Station.	J. W neaton	22	$\frac{1}{2}$	9 do 12 do		69 75 96 00
Andover and Railway Station	J. C. McCluskey	1	12	9 do	(to Dec. 31, '88)	37 50
do do	J. A. Perley	1	12	3 do	from do	12 50
Annidale and English Settlement	J. H. Langley	4	2	12 do		47 00
do do Annidale and English Settlement Apohaqui and Case Settlement Apohaqui, Collina and Pearson's	J. Wiles	11 14	1	12 do	•••••	50 00
		W. 17	3 & 2	12 do		177 12
Apohaqui and Erb Settlement Apohaqui and Railway Station	H. E. Sinnott	4	1	12 do		44 20
Apphaqui and Railway Station Armstrong and Waterford	J. A. Sinnott	100yd. 8	12	12 do 12 do		73 95 45 72
Armstrong's Brook and Jacquet			1	12 uo		40 12
River StationArmstrong's Brook and River Loui-	W. Barclay	1	12	12 do		50 00
Armstrong's Brook and River Loui-	3.			10 1		155 00
Armstrong's Corner and Round Hill	R. Corbett	$\frac{3}{20}$	$\begin{vmatrix} & 6 \\ 2 \end{vmatrix}$	$\begin{array}{ccc} 12 & \mathrm{do} \\ 12 & \mathrm{do} \end{array}$		175 00 230 00
Aroostook Junction and Railway		1	-	12 00		200 00
Station Aroostook Portage and California	D. B. Hopkins.	28	12	12 do		50 00
Aroostook Portage and California.	D. Murchison	2	1	12 do		25 00
Back Bay and St. George	A. J. Seelv	11	3	12 do		224 88
Bairdsville and Beaconsfield Baie Verte and Baie Verte Road	H. Baird	11	1	12 do		55 00
Baie Verte and Baie Verte Road	A. F. Copp	4	2	7 do		02 00
Pair Wants and Pailway Station	A C A Wells	1	12	7 do	15, 1888)	$\frac{25}{37} \frac{00}{50}$
Baie Verte and Railway Station Barachois and Lower Abougoggin	H. Gallang	111	1 1	12 do		44 48
Barnahy River and Railway Station	M. McDonald	1	12	12 do		30 00
Bartibog and Chatham	J. Doyle	12,	1	12 do		40 00
Bartlett's Mills and Railway Station Bass River and South Branch Bath, Johnville and Kilfoil Bath and Railway Station Bathurst and Bathurst Village. Bathurst and Caraquet	J. A. Campbell	16	6 3	12 do 12 do		90 00 269 00
Bath, Johnville and Kilfoil	G. Giberson	8 & 31	2 & 1	12 do		85 00
Bath and Railway Station	T. Bohan	1 1	12	12 do		60 00
Bathurst and Bathurst Village	S. P. Melanson	1 42	3 6	9 do 6 do		29 25 487 50
Bathurst and Caraquet Bathurst and Railway Station	S. P. Melanson	2	18	6 do 12 do	(and extra trips).	132 57
do do	do	2		12 do		39 00
	90	0				

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.			Period.	Amount.
							\$ ets.
Bathurst Village and Dumfries Bathurst Village and Dunlop Bathurst Village and Tête à Gauche	do	9	1 1			hs (to June 30, '88) (from July 1, '88).	7 75 34 86
River (south side)	A. Branch	10&8	1		do		39 48
Bathurst Village and Youghal Bay du Vin and Chatham Bay du Vin and Point Escuminac. Bay du Vin Mills and Upper Bay	H. Sinclair E. Nowlan	$25\frac{1}{5}$	$\begin{bmatrix} 3\\2\\2 \end{bmatrix}$	12	do do do		50 00 221 72 220 00
du Vin	W. Dickins	5	1		do		40 00
Bayfield and Port Elgin	E. D. Silliker	15 & 20	3	4	do	15 days (to Aug.) 15, '88)	58 50
Bayfield, Port Elgin and Spence			2&1	4	do	14 days (to Aug. 14, '88)	63 75
Bayfield and Railway Station	F. Harper	$1\frac{1}{2}$	6	7	do	17 days (from do	46 87
Bayside and St. Andrews		7	2		do		100 00
Bear Island and Scotch Lake Beaufort and Highlands	J. Grav	9	$\frac{1}{3}$		do do	(to June 30, '88).	27 00 27 50
do do	T. Harvey	9	3	9	do	from do	82 50
do do Beaver Dam and Rusagornis Beaver Harbor and Black's Harbor.	W. Haining	3	1		do do		$\frac{26}{35} \frac{00}{00}$
Beaver Harbor and Pennfield Ridge	F. Elridge	4	3	12	do		149 48
Belledune and Belledune River Belledune and Railway Station	D. McCurdy	4	$\frac{3}{12}$		do		75 00 80 00
Belleisle Creek and Norton Station.	J. M. Haggard.	7	2		do		57 00
Belliveau Village and St. Joseph	S. Bourgeois	7	2		do		70 00
Belyea's Cove and Heustis Landing Benton and Railway Station	A. J. Teed	50 vds	$\frac{2}{12}$		do do		$\frac{39}{20} \frac{00}{00}$
Beresford and Railway Station	J. Aubé	100 yd	6	12	do		35 00
Biggar Ridge and Foreston Birch Ridge and Red Rapids	W. H. Staten	4	1		do do		$\frac{25}{35} \frac{00}{00}$
Black Crook and Chatham	A. Manderson	6	4	12			130 00
Black Lands and River Charlo Black Point and New Mills		3 4	3 3		do do		38 00
Black Rock and Three Brooks		11	2		do		$\frac{45}{25} \frac{96}{00}$
Blackville and Coughlan	D. Coughlan	4	1		do		26 00
Blackville and ShinnickburnBlackville and Underhill	do	18 2	$\frac{1}{3}$		do do	(from Feb. 1, '89).	120 00 8 67
Blair Athol and Dalhousie	J. McIntvre	17	1	12	do	,	90 00
Blakely and Enniskillen Station Bloomfield and Railway Station	J. Blakely N. Wetmore	3	$\frac{2}{12}$		do do		45 00 56 00
Bloomfield Ridge and Boiestown	A. Fairley	10			do		59 00
Bloomfield Station and Central Norton	N. Wetmore	3_{2}^{1}	3	12	do		65 00
Bloomfield Station and Ry. Station.	T. W. Kierstead	16 9	12	12	do		20 00
Boiestown and Parker's Ridge	P. McLaughlin.	$\frac{9}{5}$					195 00
Bon Accord and Kincardine	D. Burns	5					25 00 80 00
Bonny River Station and Elmcroft. Bonny River Station and Railway	G. F. Williams	6			do		45 00
	G. Matheson	4			do		24 00
Boudreau Village, Rockland and Rockland Station Boundary Creek and Ry. Station Boundary Creek and Steeve's Moun-	J. Sutherland R. B. C. Weldon	$1\&4rac{5}{8}$	2&6 12		do do		$\begin{array}{ccc} 232 & 04 \\ 30 & 00 \end{array}$
tain Bourgeois, Grandique and Poirier's.	do R. Poirrier	$4\&2^{rac{31}{2}}$			do do		38 00 90 00
Breadalbane and New Mills Railway Station	A McNair	1	12	12	do		50 00
Station	H. L. Bailey	38	2	12	ob		340 00
Bristol and Highlands	J. Tooey	11,	$\frac{3}{12}$	12 m		hs	197 00
Bristol and Railway Stationdo do do	J. J. Hayward	1 2	12	3	do	(to Dec. 31, '88) from do	18 75 11 25
Brownsville and Stewarton Buctouche and McLaughlan Road.	A. McGregor	16 8-20		12 12	do		25 84
Ductouche and McLaughlan Road.	T. Roberts	10 0030;	Z	12	do	,	180 00

Name of Route.	Name of . Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
						\$ cts.
m	m D 1	1 10		10 11		
Buctouche and Richibucto Buctouche and St. Castin	L. Sawyer	18 64		12 month	ns	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Buctouche and St. Jean Baptiste	F. X.J. Michaud	ll 15	6	10 do	(fr'mJune1, '88)	25 00
Buctouche and ShediacBull Moose Hill and Springfield	J. D. Weldon	$\begin{vmatrix} 22 \\ 5 \end{vmatrix}$		12 do 12 do		494 00
Bumfrau, Mineral and Ry. Station.	A. J. Kearney.	5 & 1	1 & 12	12 do		70 00
Bumfrau, Mineral and Ry. Station. Burnt Church and Church Point Butternut Ridge and Carsonville	F. McKnight	15		12 do 12 do		$\frac{40\ 00}{93\ 00}$
Butternut Ridge, New Canaan and	l	1		12 00	• • • • • • • • • • • • • • • • • • • •	99 00
Forks	A. Perry	12 & 3			(and amagna)	128 00
Butternut Ridge and Ry. Station.	A. E. Kulain	4	О	12 do	(and arrears)	51 67
Caledonia, Turtle Creek and Rail	G D D 1	17 0 1		10 1		07.00
way Station. Calhoun and Railway Station	T. B. Calhoun	11 & 4	$\frac{2}{12}$	12 do 12 do		$97 96 \\ 25 00$
Cameron's Mills and St. Louis de	9	Í				
Kent		10	2	12 do	• • • • • • • • • • • • • • • • • • • •	95 00
Southampton	J. C. Munro	6	2	12 do	.	45 48
Campbellton and Railway Station.	A. McLean	1	13	3 do	(to June 30, '88, & extra trips)	52 23
do do	G. Cumming	1	13	9 do	from do and	-
Campo Bello and Wilson's Beach.	J. Brown	7	1	12 do	extra trips	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Canaan Station and Ry. Station	J. I. Bernard	1	12	12 do		20 00
Canaan Station and Ry. Station Canaan Station and Sweeneyville.	J. P. Bernard	8 & 12	2	12 do		80 00
Canobie and Clifton	J. W. Scott	$\frac{3}{12}$	$\frac{1}{2}$	12 do 12 do		30 00 148 00
Canterbury Station and North Lake	elJ. W. Dickinsor	1 22	$\frac{2}{2}$	12 do		250 00
Canterbury Station and Ry. Station Cape de Moselle Creek and Railway	C. G. Main	. 100 ya	12	12 do		50 00
Station.	. J. Wilson	1	12	12 do		25 00
Cape Tormentine Railway Station and Ice Boat House.	W. A. Wells	. 3	1	Season 1	888	191 00
do do .	T. Allen			Special t	rips	4 00
do do			3	do 12 mont	hs	$\frac{4}{34} \frac{00}{00}$
Caraquet and St. Simon	. J. R. LeBoutil	-				
Caraquet and Shippigan	lier	$\frac{9}{20}$	$\begin{bmatrix} 1 \\ 6 & 3 \end{bmatrix}$	12 do do	(to June 30, '88)	30 00 67 50
Caraquet and Tracadie	P. Thériault	22	6	12 do	(105 tille 30, 36)	344 00
Carleton and St. John	. D. O'Connell	. 1	36	12 do		138 00
Carleton and Street Letter Boxes. Carlisle and Lower Windsor			12	12 do 12 do		78 00 48 68
Central Blissville and Frederictor	n			10 1		ro 00
Junction Central Hampstead and Hibernia.	D. Gardner	$\frac{4}{3}$	$\frac{2}{2}$	12 do 12 do		53 32 40 00
Central Waterville and Temperanc	e	i		1		00.00
Vale Centreville, Florenceville, Tracey'	G. T. Pinder	. 5	1	12 do		30 00
Mills and Greenfield	. W. Jewett	. 2, 4, 0	3		/. T 00 MOD	=0.00
Centreville and Florenceville Rail way Station	I. N. Boyer	& 12 5	22,3&6	3 do	(to June 30, '88) (from July 1, '88)	76 00 55 50
Centreville, Tracey's Mills and				0 40	(1101110 (11) 1, 00)	00 00
Greenfield		$\frac{2}{6}$	3 & 2	2 9 do	do do	86 25
Croft.			1		do do	28 00
Chambord and Grand Falls	. I. Michaud		5 1			50 00
Chance Harbor, Lepreaux and Little Lepreaux	U. J. Hope.	. 19 &	1 2 & 6	6 12 do		241 60
Chapman and Little Shemogue	. C. R. Oulton	. 3	2	6 do	(from Oct. 1, '88)	-17 50
Charleston and Middle Simonds Charlo Station and Upper Charlo.			1 6	12 do 12 do		50 00 59 00
Chatham and Douglasfield Chatham and Kouchbouguac	. T. King	. 5	1	12 do		20 00
Chatham and Kouchbouguac			1 2	12 do		258 00
	9	2				

Chatham and Newcastle	200 00 320 00 960 00 12 50 24 75 35 00 58 00 176 25 26 00 59 00 40 00 244 00 272 80 65 00 30 00 17 75 39 00 96 95 30 00 44 00 25 00 17 88
Chatham and Railway Station Chatham and Tracadie Robertson & McCallum Station Callum Station C	200 00 320 00 960 00 12 50 24 75 35 00 58 00 176 25 26 00 59 00 40 00 244 00 272 80 65 00 30 00 17 75 39 00 96 95 30 00 44 00 25 00 17 88
Callum	960 00 12 50 24 75 35 00 58 00 176 25 26 00 49 00 244 00 272 80 65 00 30 00 17 75 39 00 96 95 30 00 44 00 25 00 17 88
Chelmsford and Doyle's Brook. J. Gratten 77 2 & 6 3 3 do (to June 30, '88).	12 50 24 75 35 00 58 00 176 25 26 00 59 00 40 00 272 80 65 00 30 00 17 75 39 00 96 95 30 00 25 00 17 88
Chelmsford and South Nelson. J. D. Brown. 5	24 75 35 00 58 00 176 25 26 00 59 00 40 00 241 00 272 80 65 00 30 00 17 75 39 00 96 95 30 00 44 00
Chipman and Harley Road	35 00 58 00 176 25 26 00 59 00 40 00 244 00 272 80 65 00 30 00 17 75 39 00 96 95 30 00 44 00 25 00
Church Hill and Riverview	176 25 26 00 59 00 40 00 244 00 272 80 65 00 30 00 17 75 39 00 96 95 30 00 44 00 25 00 17 88
Clarendon and Gaspereaux Station Clarendon Station and Ry. Station Clifton and Grey's Mills J. Rogers 10 6 12 do Clifton and Land's End O. M. Flewelling 22 2 12 do Clinch's Mills and Gooseberry Cove J. Ferguson 4 2 12 do Clinch's Mills and Little Musquash Clinch's Mills and Railway Crossing Clover Hill and Sussex Vale F. C. Buchanan 15 12 do do Colal Greek and Coal Mines J. T. Swift 100 yd 12 12 do do Cocagne and Cocagne Cape J. S. Lucas 4 1 12 do do Coldbrook and Railway Station P. O'Neil 18 12 2 do do do College Bridge and Railway Station D. F. Richard 18 12 12 do do do Collina and Springfield J. Kellier J.	59 00 40 00 244 00 272 80 65 00 30 00 17 75 39 00 96 95 30 00 44 00 25 00 17 88
Clifton and Grey's Mills	244 00 272 80 65 00 30 00 17 75 39 00 96 95 30 00 44 00 25 00 17 88
Clinch's Mills and Gooseberry Cove J. Ferguson. 4 2 12 do	65 00 30 00 17 75 39 00 96 95 30 00 44 00 25 00 17 88
Clinch's Mills and Railway Crossing Clover Hill and Sussex Vale	17 75 39 00 96 95 30 00 44 00 25 00 17 88
Clover Hill and Sussex Vale	39 00 96 95 30 00 44 00 25 00 17 88
Coal Creek and Coal Mines J. Brown 4 2 12 do	30 00 44 00 25 00 17 88
Coal Creek and Upper Coal Creek M. E. Weaver 4 1 12 do Cocagne and Cocagne Cape J. S. Lucas 4 1 12 do Cocagne and Notre Dame H. Dysart 6 2 12 do Cole's Island and Narrows D. H. Marr 12 3 do (from Jan. 1, '89 do Cole's Island and New Canaan J. Thorne 23 1 do Gole's Island and New Canaan J. Thorne 23 1 go do from do	25 00 17 88
Cocagne and Notre Dame.	
Cole's Island and Narrows. D. H. Marr. 12 3 12 do	
Cole's Island and New Canaan. J. Thorne. 23 1 3 do (to June 30, '88). do A. Corey. 23 1 9 do from do College Bridge and Railway Station Collina and Springfield. J. Kellier. 14&10 1 12 12 do Cormier's Cove and St. Joseph. D. A. Cormier. 2 2 12 do	155 00
Collige Bridge and Railway Station D. F. Richard 12 12 do	25 00 73 50
Cormier's Cove and St. Joseph D. A. Cormier 2 2 12 do	56 25
	30 00
Cox's Point and Cumberland Bay. T. H. Brans-	
Cross Creek and Stanley	
Curryvine and Kanway Station J. A. Beaumont. 8 12 12 do	30 00
Dalhousie and Point la Nim P. Stewart 3 3 12 do	0.00.00
Dalhousie Junction and Ry. Station J. A. McNair $\frac{1}{16}$ 12 9 do (to Dec. 31, '88). do W. Jamieson $\frac{1}{2}$ 12 3 do from do	18 75
Dalhousie and Wharf. H. A. Johnson 4 Season 1888	32 70
Debeck and Railway Station. A. Harron 12 12 12 do	30 00
Donegal, Waterford and Sussex Vale F. C. Buchanan. 10 & 8 1 12 do	189 56
Dorchester and Fairview	
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	439 62
Dorchester and Woodhurst B. Card	20 00
Dorn Ridge and Mouth of Keswick W. H. Pugh 14 2 12 do	87 00
Douglastown and Newcastle J. Fisher. 5 12 12 do Dover and Moncton W.A.McFarlane 10 2 12 do 12 do	
Dover and Moncton	71 00
Dovie Settlement and River Louison T. Haves, ir 3 1 1 12 do	89 50 12 00
Dumbarton Station and Ry. Station T. Irvin 30 yds 12 3 do (to June 30, '88).	10 00
Dumbarton Station and Rolling Dam do 20 & 5 2 9 do (to Dec. 31, '88).	10 00

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.			Period.	Amount.
							\$ cts
Dungiven and Memramcook		4	1	12 n	ont	hs	25 00
Dupey's Corner and St. André de Shediac	R. Hébert	34	1	12	do		/ 18 00
Edgett's Landing and Hillsborough			6	6		(to Sept. 30, '88).	45 00
Edmundston and Grand Falls	M. Hartt						1,395 00
Edmundston and Mouth of St Francis	I. Levêque	36	3	2	do -	(to May 31, '88).	83 33
do do Edmundston and Upper Madawask	. do	37	3 6			from do	428 28 24 00
Eel River Crossing and Ry. Station	W. McNair	1 16	12	12	do		40 00
Eel River Crossing and Ry. Station Elgin and Prosser Brook Elgin and Railway Station	G. M. Killam	13				• • • • • • • • • • • • • • • • • • •	192 00 39 88
Elmsville and Railway Station Emigrant Road and Port Elgin			6 3	12	do		40 00
			1			17 dys (from Aug. 15, '88)	91 92
Ennishore and Grand Falls Enniskillen Station and Ry. Station	C. O'Regan	31					30 00 25 00
·		1					
Fairhaven and Lord's Cove Fairhaven and Steamer	do	10	3s., 2w $3s., 2w$	$\frac{12}{12}$			195 00 100 00
Fairhaven and Steamer Fairville and Railway Station	C. J. Tilton	18	18	12	do		75 00
Fenwick and McKnight Fenwick and Sheba Ferguson's Point and Intersection o	T. Simpson	15					15 00 33 00
Ferguson's Point and Intersection of Caraquet and Chatham Route	f W Forgueon	3	6	12	do		31 20
Flatlands and Railway Station Florenceville and Railway Station.	J. Steeves	1 8	6				50 00
Florenceville and Railway Station.	W. McMullin	1 4	12				185 00 56 00
Florenceville East and Riverbank. Flume Ridge and Magaguadavic.	M. Noonan	6	1	12	do		30 00
Forks and Ida	. E. Kierstead	45	1				
Four Falls and Ortonville Fredericton and Hanwell	P. Lacy	10	1	12	do		59 48
Fredericton and Lower St. Mary's. Fredericton and Marysville	T. B. Dunphy	6 4					$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Fredericton and Nasonworth	S. K. Nason	91			do		52 00
Fredericton and Newcastle do do	J. Rae	105	3 3	4	do do	(to Sept. 30, '88). (to Jan. 31, '89).	736 25 982 50
Fredericton and Railway Station Fredericton and St. Mary's Ferr	ry i		18	12	do	(and extra trips).	178 48
(No. 1). Fredericton and St. Mary's Ferr. (No. 2). Excelericton and St. Mary's Ferr.	. do	34	6	12	do		30 00
Fredericton and St. Mary's Ferr	M. W. Rvan	3	6	12	do		30 00
riedericion and Stanley	. 1. D. Dunpny	00			do		165 00 67 50
Fredericton and Street Letter Boxe Fredericton and Wharf	P. D. McKenzie	1	12			(from July 1, '88). trips	2 00
Fredericton and Wisely. Fredericton and Woodstock, East. Fredericton and Woodstock, West.	G. I. Gunter	70	2			(from June 1, '88).	41 67 550 00
Fredericton and Woodstock, West.	R. H. Rainsford	63	3	12	do		800 00
Fredericton Junct'n and Ry. Station French Village and St. John	J. Shehan D. O'Connell	25 yds	24				40 00 136 00
Gagetown and Mouth of Nerepis		1	1				
		401 w.	3		do		695 00
Gagetown and Narrows	F. E. Wilson	19	3 3		do do		270 00 100 00
Gagetown and Welsford	. H. Johnston	28	3	12	do		470 00
Gagetown and White's Cove Gailey and Thomas Galland's	J. White	13 2	$\frac{3}{2}$		do do	,	250 00 30 00
Gaspereau Station and Ry. Station	.P. W. Mooney	1	6	12	do		40 00
Gaythorne and Tabusintac Gillespie and Grand Falls Portage	. J. McCallan	2	1 1		do do		30 00 *25 00
Gladstone and Kintore	T. Watt	81			do do		120 00 15 60
Golden Ridge and Knowlesville	G. Campbell	$\frac{3^2}{6^2}$			do		34 00

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	Period.	Amount.
					* ets.
Goose Creek and Shepody Road	T Presentt	13	1	12 months	60.00
Gouldville and Memramcook		25	2	12 do	32 08
Grafton and Woodstock	A. D. Shea	$1\frac{1}{2}$	6	12 do	48 00
Grainfield and North Renous		4	2 s. 1 w	12 do	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Grande Anse and Mizonetto Grand Bay and Railway Station		1 8		12 do	20 00
Grand Falls and Railway Station	P. McMillan	$\frac{1}{2}$	12	10 do (to Jan. 31, 1889)	62 50
do do Grand Falls and Undine	J. J. Kelly	100-11	12	2 do from do 12 do	12 50
Grand Falls and Undine	J. A. Perlev	13&11 74	$\frac{2}{6}$	12 do	$\begin{array}{c} 121 & 75 \\ 2,700 & 00 \end{array}$
Grand Harbor and White Head	E. A. Daggett				94 00
Grand Manan and Seal Cove	G. E. Tatton		3 & 2	12 do	119 00
Great Shemogue and Little Cape	J. S. Leger	$\begin{array}{c} 4 \\ 24 \end{array}$	-16	12 do	$\begin{array}{cccc} 25 & 00 \\ 200 & 00 \end{array}$
Great Shemogue and Shediac Great Shemogue and Upper Sack-	1. 11. Heneru	24	U	0 (110m Oct. 1, 88)	200 00
ville	D. Wheaton		1	3 do (to June 30, 1888)	23 25
Green Point and Petit Rocher	J. Morrison	$\frac{31}{5}$	1	12 do	35 00
Halcomb and Lyttleton Hammond Vale and Shepody Road	W. Fowler	$\frac{5}{12}$	1	12 do	39 00 104 00
Hampstead and Wickham	J. S. VanWart	2	2	12 do	40 00
Hampton and Ossekeag	F. Williams	1	6	12 do	40 00
Hampton and Urquhart's	J. McLauchlan.	13	$\frac{2}{1}$	12 do	130 00 29 00
Harewood and Salisbury		13	1	12 do	48 00
Hartland and Knowlesville	W. Craig	$22\frac{1}{2}$	3	12 do	274 00
Hartland and Railway Station	A. Nevers	18		12 do	45 00
Harvey and Midway Harvey and Railway Station	L F West	$\frac{3\frac{1}{2}}{1\frac{1}{3}}$	$\frac{1}{6}$	12 do	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Harvey and Waterside	R. Smith	112		12 do	120 00
Harvey Bank and Hillsboro'	C. Peck		1	Special service	42 50
Harvey Bank, Harvey and Ry. Sta-	R. Smith	1	6	9 months (to Dec. 31,'88)	52 50
Harvey Bank and Railway Station.	W. B. Wells	1.	6	9 do	$\frac{32}{22} \frac{50}{50}$
Harvey Station and Magaguadavic.	T. Craig	18	2	12 do	149 00
Harvey Station and Ry. Station			12	12 do	$\frac{30}{28} \frac{00}{76}$
Harvey Station and Yoho Hartfield Point and West Scotch	K. McLaughin.	8	1	12 do	20 10
Settlement	F. D. Ganong	4	1	3 do (to June 30, '88)	5 50
do do .	W.A.S. Perkins.	4	1	9 do from do	16 50
Head of Millstream and Perry Set- tlement	R R Haves	5	1	12 do	30 00
Head of Millstream and Sussex	D. D. Hayes	.,	1	12 00	50 00
Vale	do	19	2	12 do	175 00
Head of Tide and Railway Station.			6	12 do	50 00
Head of Tide and Robinsonville Heron Island and New Mills	J. McNair	$\frac{19\frac{1}{2}}{3}$	1 1	12 do (to June 30 '88)	6 75
do do	W. Maxwell	3	1	9 do from do	24 00
Hillsborough and Lower Cape	J. Bray	9	6	6 do (from Oct. 1, '88)	100 00
Hillsborough and Moncton Hillsborough and Railway Station.	K. L. Blake		$\frac{6}{12}$	Special service	63 00 19 50
do do	R. E. Steeves	16	12	9 do (from do	58 50
do do Hillsborough and Rose Vale	H. J. Stevens	13	3	12 do	140 00
Hillsdale and Mackville Hillsdale and Sussex Vale	J. McIntyre	3		12 do	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
Hopewell Cape and Railway Station.	J. Bray	$\frac{17}{3\frac{1}{3}}$	$\frac{3}{12}$	12 do	100 00
do do	W. E. Calhoun			6 do from do	45 00
Hopewell Hill, Hopewell and Rail-	C T Dools	7.1	6 8- 10	19 do	80 00
way Station	W. Hunt		6 & 12		50 00
Hopper and Salisbury	J. McGee		1	12 months	82 00
Hoyt Station and Juvenile Settle-					A- 00
ment. Hoyt Station and Railway Station	J. E. Patterson.	12 & 9	$\frac{2}{12}$	12 do	75 88 50 00
Indian Mountain and Moneton	A. M. Bonnell.	14	1	12 do	78 00
Indiantown and St. John		2		3 do (to June 30, '88 &	
		1	1	extra service)	59 00

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.			Period.	Amount.
							8 ets.
Indiantown and St. JohnInkerman and PockmoucheInkerman and Railway StationIrishtown and ShediacJenkins and Thornetown	do C. Sullivan	$\begin{array}{c c} 3 \\ 3 \\ 20 \end{array}$	12 3 6 1 3	$\begin{vmatrix} 6 \\ 6 \\ 12 \end{vmatrix}$	do do do	hs from July 1, '88 (to Sept. 30, '88). from Oct. 1, '88).	117 00 13 50 22 50 126 00 38 00
Jolicure, Westmoreland Point and Railway Station			6 & 12			17 dys (from Aug.	
·						15, '88)	140 62
Jordan Mountain and Newtown Keats and Petitcodiac	R. F. Keith	7	$\frac{1}{3}$	12	do do		38 00 117 00
Kerry and New Ireland Road do do	J. Garland	5	1	3 9	do do	(to June 30, '88). from do	6 25 37 11
Keswick Ridge and Millville Kilburn and Kintore	J. Harrigan	27 & 30	2	12	do do		295 16 80 00
Kilburn and Railway Station	B. Kilburn	1 8	12	12	do		25 00
Kingsclear and New Market Kingston (Kent) and Railway Sta-		1	1	-	do		36 00
tion Kingston (Kent) and Richibucto	E. Harnett	1 2	12	12	do		100 00
Village	P. McCaie	7 21	$\frac{2}{2}$		do do		60 00 35 00
Kingston (Kings) and Rothsay	S. Cosman	10		12	do do		449 00
Knoxford and Upper Knoxford do do	R. Longstaff	4	1		do	(to Dec. 31, '88) from do	19 50 6 50
Kouchibouguac and Kouchibouguac Beach		9	2		do		60 00
Kouchibouguae and Point Sapin	P. Wood	20	1 6		do do	(to June 30, '88).	65 00 66 25
do do Lake George and Prince William	J. McLane	12	6		do	from do	217 50
Station	W. Nichol	22	2	9		(to Dec. 31, '88).	142 50
Lakeview and Narrows	R. Black	22	2 3	$\frac{3}{12}$	do	from do	39 25 50 00
Lakeville Corner and Newcastle Creek	T. L. Simmons.		2	12	do		172 00
Landry and Pockmouche Lawrence Station and Railway Sta		1	1	12	do	• • • • • • • • • • • • • • • • • • • •	23 00
tion. Ledge and St. Stephen	J. Tavlor	200 ye	12 3s. 2w.	12	do		
Légère and Portage River	L. Mauzerall	~ 2	3	12	do		30 00
Lepreaux and Pocologan: Lepreaux and Railway Station	H. P. Reynolds	10	1		do	(from July 1, '88).	25 00
Lime Hill and Junction of Spring	W. W. Price	. 12&13	3 1	12	do		72 80
Hill Road. Lincoln and Oromocto.	T. Scribner	. 2	1 3	12 12	do do		15 00 65 00
Little Lake and Tracey Station Little Salmon River Mills and	J. Steen	. 11	i	12	do		58 00
Shepody RoadLoch Lomond and St. Martin's	G. J. Vaughan.	. 8	1	12	do		80 00
Long Point and Springfield	. W. Kellier	. 17 & 10	1 1	12 12	do		100 00 35 44
Long Settlement and Woodstock Lower Brighton and Woodstock	J. R. Tupper	\perp 25			do do		200 28 100 00
Lower Nappan and Point au Car	D. Loggie	. 5	$\frac{1}{2}$	3 9	do	(to June 30, '88). from do .	13 50 35 61
Lower Southampton and Norton	TON						
Dale Lower Turtle Creek and Turtle	e		2		do	*************	88 48
Creek	G. A. Fillmore. A. W. Hay	. 3		12 12	do		15 00 58 20
Lower Woodstock and Speerville. Lyttleton and Red Bank do do	E. H. Tozer E. Somers	5 5	3 3		do do	(to Dec. 31, '88) from do	60 00 22 50
McGinley and Memramcook	S. C. Charters.	. 1;		12	do		40.00
Maple Green and Railway Station.	. J. Fraser		3	14	uu		30, 00

		E.	Trips /eek.			
	Name	, ice	of Trip Week.			
Name of Route.	of Contractor.	Distance Miles.	of 'r	i	Period.	Amount.
	Contractor.	Ü.S.	No. c			
					1	
						8 ets.
Maplehurst, Upper Kent and Rail-		9 % 1	2&12	10	.41	~~ 00
way Station	G. Russell		1	12 moi	iths	75 00 20 00
Maplewood and Millville	H. Palmer	5	1	12 do		24 00
Martin's Head and Salmon River Marysville and Peniac	T. B. Dunphy	15	$\frac{1}{2}$	12 do 12 do		100 00
Maugerville and Upper Maugerville	P. McClusky	5	3	12 do		68 00
Meadows and Railway Station Memramcook and Railway Station.	G. F. Beach	20 yds	$\frac{12}{24}$	12 do 12 do		10 00
Milford and Railway Station	J. Irvine	1.1	12	12 do		75 00
Milledgeville and St. John Millstream and Mountain Dale			$\frac{2}{1}$	12 do 12 do		65 00 46 28
Millstream and Mount Hebron			1	12 do		41 08
Milltown and St. Stephen	J. & E. Kevs	2	12	12 do		148 48
Milltown and Upper Mills Miscou Harbor and Wilson's Point.	J. M. Macdonald J. A. Wilson	3 6	$2 \operatorname{s} 1 \operatorname{w}$	12 do 12 do		50 00 60 36
Mispec and St. John	D. O'Connell	9	1	12 do		59 76
Moncton and O'Neill	J. McQuade	15	36	12 do 12 do		59 00 360 00
Moncton and Stony Creek	J. B. Scott	8	1	12 do		52 00
Moncton and Street Letter Boxes	J. Gallagher	1	12 2	12 do		150 00
Moncton and Upper Coverdale Moncton Road and Shediac	W. G. Bateman.	14	1	12 do 12 do		105 00
Monument Settlement and Rich-		1 .		i		
mond Corner	J. Kennedy	27 & 20	$\frac{2}{12}$	12 do 12 do		156 00 52 00
Mount View and Upper Sackville.	J. Wheaton	3	1	12 do		20 00
Mountville and Railway Station	J. Wilbur	100 ys.	12	12 do		20 00
Mouth of Nerepis and Railway Station	J. M. Nase	2	12	12 do		50 00
Musquash and Railway Crossing	L. D. Carman	3	12	12 do		26 00
Narrows and Norton Station Narrows and Upper Gaspereaux	W. Linden	21 50	3	12 do 12 do		425 00 595 00
Narrows and Wickam	M. Dacey	24	3	3 do	14 days (to July	
An An	C W Dan	24	3	0 40	14, 1888)	111 76 249 19
do do	G. W. Day J. A. Young	10	1	8 do 12 do	17 days from do	52 00
Nauwigewauk and Railway Station	W. W. Dodge	1 4	12	12 do		25 00
Nerepis Station and Ry. Station Nerepis Station and Round Hill			12	12 do 12 do		20 00 70 00
Newcastle and Railway Station	J. Fisher	1	24	12 do	(and extra trips)	207 72
Newcastle and Red Bank Newcastle and Renous Bridge	J. C. Millar	15 17	3	12 do 2 do		248 50 45 83
Newcastle and Sevogle	A. Cain	25	1	6 do		92 00
do do	J. C. Brown	$\frac{25}{2}$	1 0	6 do	(from do	72 50 199 00
Newcastle and South Nelson Newcastle Letter Box and Railway		2	6	12 do		199 00
Station	J. Fisher	1	6	12 do		31 28
New Mills and Railway Station Newtown and Sussex Vale	A. McNair	12&10	$\frac{12}{3}$	12 do		49 88 114 48
Nictau and Riley Brook	E. P. Ross	. 6	1	12 de		30 00
Nixon and Turtle Creek	G. Wilson	. 4	1	12 do		20 00
North Forks of Salmon Creek and Salmon Creek	S. P. Fowler	. 4	1	12 de		37 40
North River Platform and Railway	7		10			1 25 00
Station. Notre Dame and Poirier.			12	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		25 00 30 00
Oak Bay and Railway Station Oakham and Thornetown.			12	$\frac{12}{3}$ do	(to June 30, '88).	65 00 7 50
do do	E. Perry	. 4	2	9 dc	from do .	31 86
Oak Hill and St. Stephen	J. & E. Keys	. 22	1 6		1888	159 00 30 00
Oak Point and Round Hill Oakville and Richmond Corner	L. S. Purinton	10	6 1		nths	80 00
Oromocto and Waasis Station	J. S. Hubble	6	6	12 de		190 00

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	Peri	od.	Amount.
					i	\$ ct
Oromocto and Woodside do do Oromocto, Sheffield, Upper Gage-	do	12 18	$\frac{2}{2}$	6 month (to) 6 do from	Sept. 30, '88) do	43 2 54 5
town and Swan Creek		10, 21 & 12	6 & 3			344 2
Ossekeag and Upperton	R. W. Barnes	19½	2	12 do		180 0
Painsec Settlement and Railway Station	E. Babin	1		12 do		27 0
Paquetville and Pockshaw Passekeag and Railway Station	G. R. Campbell.	150 y's	12	12 do	une 30, '88).	$\begin{array}{c} 37 & 5 \\ 50 & 0 \end{array}$
Passekeag and Sherlock	J. McVey	9 & 12	$\frac{1}{2}$			$\begin{array}{r} 32 \ 5 \\ 150 \ 0 \end{array}$
Pearson's and Starkeys. Pennsheld Ridge and Ry. Station.	S. McKay	2	$\frac{\bar{6}}{2}$	12 do		60 0
Penobsquis and Roxburgh do do do	J. J. Haelam	91	. 2	3 do from	Dec. 31, '88). do	144 3 44 3
Perth Centre and Ry. Station Prrth Centre and Riley Brook	G. W. Larlee W. Inman	64&8	$\frac{12}{2 \& 1}$			$\frac{50}{601} \frac{0}{2}$
Perth Centre and Tilley Petersville and Welsford	A. H. Larlee	15	2 2	12 do (ande	extraserv'e).	127 1
do do	P. Lingley	10	2	9 do from	une 30, '88) do	$\begin{array}{c} 25 & 0 \\ 72 & 0 \end{array}$
Petersville Church and South Clones Petit Rocher and Railway Station.			$\frac{1}{12}$			$\frac{30}{75} \frac{0}{0}$
Pioneer and Woodstock	J. R. Tupper	25	3	12 do		297 0
Pisarinco and Spruce Lake do do	E. McCarthy	6 6	$\frac{2}{2}$	3 do (to J 9 do from	une 30, '88).	$\begin{array}{c} 9 \ 8 \\ 30 \ 0 \end{array}$
Pleasant Ridge and Rolling Dam Station Pocologan and New River Railway		10	2	3 do (from	Jan. 1, '89)	18 7
Station	J. Knight	6	2		une 30, '88).	12 5
Pointe du Chêne and Ry. Station Pollett River and Railway Station.				12 do		$\begin{array}{c} 25 \ 0 \\ 19 \ 4 \end{array}$
Port Elgin and Railway Station	G. Siddall	1	12	7 do and 1	7 days (from 888)	25 0
Port Elgin and Shediac			3	6 months (to	Sept. 30, '88)	200 0
Port Elgin and Spence		24	2	7 do and 1 Aug. 15, 18	888)	92 7
Port Elgin, Westmoreland Point and Railway Station	T. J. Bulmer	16& 1	6& 12	4 months ar		150 0
Prince of Wales and Ry. Crossing.		1/2	6	12 months	14, 1888)	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Prince William Station and Railway Station.	W. G. Hatch	300 y's	12	12 do		50 0
Prince William Station and York Mills.	W. Murray	3	2	12 do		93 0
Renous Bridge and South Renous.			2			42 0
Reynolds and South Nelson Richibucto and Railway Station	J. C. Vantour.	1	2 6			$ \begin{array}{ccccccccccccccccccccccccccccccccccc$
Richibucto and Weldford River Charlo and Railway Station.	L. J. Wathen.	27	$\begin{array}{c c} & 6 \\ 12 \end{array}$	12 do		737 0 65 0
River Louison and Sunnyside:	J. Millar	.7	1	12 do		46 0
Riverside and Railway Station Rockland Station and Ry. Station.	M. Daley	300 77		12 do 12 do		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Rockport and Sackville	A. Tower	16	1	12 do		65 0
Rogerville and Railway Station Rogerville and Rogerville, East	D. Fontaine J. Hache	100 y's	12	12 do 12 do		$\begin{array}{c} 25 & 0 \\ 42 & 6 \end{array}$
Rogerville and Vienneau	F. McCaill	52	i	140 1		35 0
Rolling Dam Station and Railway Station	W. Goodill	16	12		July 1, '88).	30 0
Station	W. E. Hoyt A. Grass	8 & 6	$\frac{2}{3}$			80 0 40 0
St. Andrews and Railway Station.					arrears)	80 7
St. Andrews and Wharf		- 51	7	400 3	arrears,	32 0

Name of Route.	Name of . Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amou	nt.
a. C						\$	cts.
St. Croix and Vanceboro' Railway Station	A. W. Sears	1	, 6	12 mor	nths	35	5 00
St. George and Railway Station St. Isidore and Tracadie			$\frac{12}{2}$	12 do 12 do			£ 50) 00
St. John and Grand Southern Rail-							
way Station St. John and Intercolonial Railway		1	6	12 do			5 00
StationSt. John and New Brunswick Rail-	D. O'Connell	1	30	12 do	(and extra trips).	432	2 92
way StationSt. John, Wharf, and Ry. Station	do	1	36	12 do			L 47
St. John and St. Martin's	A. E. Mallery	30	6	12 mor	trips	1,076	3 40
St. John and Sand Point Road St. John and Street Letter Boxes	D. Peacock	3	18 18	12 do 12 do			00 6
St. Joseph and Railway Station St. Leonard Station and Van Buren,	J. E. Gaudet	1	12	12 do		84	1 00
U.S. St. Martin's and Salmon River.	W. C. Hammond	1	6	12 do			00
St. Martin's and Salmon River St. Norbert and West Branch	A. W. Fownes D. Gallant	·9 5	3 & 2	12 do 12 do			5 21 9 48
St. Stephen and Calais, U.S St. Stephen and Grand Southern	J. & E. Keys	1	12	12 do			00
Railway Station	J. Green	1	6	12 do		69	00
St. Stephen and New Brunswick Railway Station	Hardy & Bridges	1/3	12	12 do	(and extra trips).	212	2 02
St. Stephen and WharfSackville and Intercolonial Ry. St'n	do	1	$6 \& 4 \\ 24$	12 do	do		20
· ·				6 do	(to Sept. 30, '88, and arrears		36
do do Sackville and N.B. & P.E.I. Ry. St'n	J. J. Wheaton	1	24	6 do	from do	100	00
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Ry. Co	7	12	4 do	17 dys (to Dec.31,	0	37
Sackville and Second Westcock	C. Doo	8	1	12 do	'88)		00
Sackville and Upper Sackville Sackville and Wood Point	J. J. Wheaton. : E. Snowden	5 : 6	6 1				3 72 1 48
Salisbury and Railway Station Salt Springs and Titusville	G. W. Gaynor.	600 yd	24	12 do		150	00
Sargent and Junction of Chatham		6	2	12 do		->6	6-00
and Point Escuminae RouteShediac and Railway Station	H. Sargent	. 1	$\frac{2}{42}$	12 do 12 do			00 3 40
Shediac Road and Railway Station.	G. Rodgerson	1	3	12 do		33	00
Shippigan and Shippigan Island South Bay and Railway Station	J. Goodin	100 yd	$\frac{2 \text{ s } 1 \text{ w}}{12}$	$\begin{array}{ccc} 12 & \mathrm{do} \\ 12 & \mathrm{do} \end{array}$			00
South Nelson and South Nelson Road Spruce Lake and Railway Crossing.	W. Gorman.	3	2 6	3 do 12 do			17
Spruce Lake Station and Rv. Station	E. McCarthy.	1 ²	6	12 do		20	00
Stanley and Williamsburg Starkey's and Young's Cove	T. Sansom S. J. Thorne	11	1	3 do 12 do	(from Jan. 1, '89)		00
Stymast Settlement and Upper Ne		5	2	12 do		57	48
guacSummerfield and Upper Wicklow	A. Gee	3	2	12 do		25	00
Sussex Corner and Sussex Vale Sussex Vale and Railway Station	R. D. Boal	$250~ m{yd}$	$\frac{6}{30}$	12 do 12 do			68 - 60 -
The Range and Wiggins	A F Barton	$2\frac{1}{2}$	1	12 do		28	00
The Range and Wiggins Three Mile House and Ry. Station	P. O'Neill	Į.	12	9 do	, , ,	22	50
Three Tree Creek and Ry. Station Tower Hill and Railway Station	J. Irons	$2^{\frac{4}{1}}$	$\frac{6}{2}$	12 do 12 do			$\frac{00}{75}$
Tracey Station and Railway Station. Tracey Station and Traceyville	D. S. Duplisea do	$50~{ m yds}^{ m l} \ 4$	12 1	12 do 12 do			00
Waweig and Railway Station Weldford and Railway Station	L. J. Wathem.	1 16 18	$\frac{6}{24}$	12 do 12 do		$\begin{array}{c} 40 \\ 164 \end{array}$	00
Welsford and Railway Station Whittier's Ridge and Dumbarton	H. W. Wood	ę	12	12	(and extra trips).	87	36
Mail Route.	J. Hill	+	2	9 ? do	to Universities	9	75

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	Period.	Amount.
Woodstock and Houlton, U.S Woodstock and Railway Station	F. W. Bull J. R. Tupper	14 18		12 months	\$ ets. 245 00 224 64 \$55,058 76

WILLIAM WHITE,

Deputy Postmaster-General.

W. H. SMITHSON,
Accountant.

DETAIL of all payments for Mail Transportation in New Brunswick, made within the Year ended 30th June, 1889. CONVEYANCE OF MAILS BY STEAMBOATS AND SAILING VESSELS.

Amount.	\$ cts. 1,000 00 1,000 00 83 33 200 00 1,000 00 2,8371 80 2,371 80 3,256 58 2,5 00 326 58 815,478 37
Period.	9 months (to March 31, 1889) Season 1888 1 month (to April 30, 1888) 2 do (to June 30, 1888) (In addition to subsidy) Thom the (to Oct. 31, 1888) 18 trips From December 23, 1888, to March 25, 1889. 3 months (to June 30, 1889, and extra trips) 11 month (to April 30, 1889) 11 do (to March 31, 1889).
No. of Trips per Week.	ರ ೮ ೮ १ 4 ನ ಭ ನ ನ ಭನ ಚಾರುಬ—ಬಹಟ ಭ ಪಟ
Distance in Miles.	2 8 2 2 2 2 3 8 3 2 4 2 2 2 2 2 3 8 3 2 2 2 2 2 3 3 3 3 3 3 3
Name of Contractor.	W. E. Sulis. W. E. Sulis. W. E. Sulis. do do E. Gaskill. Nova Scotia Steamship Co. New Brunswick & Nova Scotia SS. Co. Government Steamship Co. Bay of Fundy Steamship Co. J. Murchie
Name of Route.	Campo Bello, Indian Island and Eastport, U.S. Fredericton and Indiantown. Grand Manan and Eastport, U.S. do Grand Manan, St. John and St. Stephen. St. John, Digby, N.S. and Annapolis, N.S. do d

WILLIAM WHITE,
Deputy Postmaster-General.

W. H. Smithson,
Accountant.

N.B —For Special Mail Subsidies and Steamship Subventions, see page 9.

DETAIL of all payments for Mail Transportation in New Brunswick, made within the Year ended 30th June, 1889.

Albert Railway 48 6 Caraquet Railway 65 6 Chatham Branch Railway 9 24 1 Elgin, Petitcodiac and Havelock Railway Co 27 6 1			Period.	Amount.
65 6 6 24 alilway Co		0 montl	10 months 27 days (to March 31, 1889)	\$ cts.
ailway Co 27 6		op 6	(to March 31, 1889)	1,343 85
97.	24 12	2 do		00 968
	6 12	2 do		673 92
(trand Southern Railway	6 12	op a		2,036 76
OIntercolonial Railway (within New Brunswick)	ith varying frequency over different sections of the line, 15	99 99	(to June 30, 1889) and arrears	61,168 75 673 92
306 W	7ith varying frequency over different sections of the line.	2 do 7	17 days (to March 31, 1889).	24,428 32 423 36
Northern and Western Railway Co		2 do	(to March 31, 1889)	416 66
St. John Bridge and Railway Extension Co	required	2 do		200 00
			Total	\$94,734 98

WILLIAM WHITE,
Deputy Postmaster-General.

W. H. Smithson,
Accountant

DETAIL of all payments for making and repairing Mail Bags, Mail Locks, &c., in New Brunswick, made within the Year ended 30th June, 1889.

Tradesmen's Names.	 	Amour	nt.		
				*	ots.
S. & H. Borbridge	Mail bags, labels and	repairs for Post	Office Department.	446	91
R. S. Montgomery	do	do	do	183	20
do	Lead rivet seals for Po	st Office Depa	rtment	280	00
Pritchard & Andrews	Mail bag labels	do		43	27
Miller Lock Co	Mail locks and keys	do		7	20
E. Chanteloup	Mail lock keys	do		2	50
G. Bailey	Repairing mail locks	do		3	(00)
Smith & Egge Manufacturing Co	Mail locks and keys	do		7	00
D. Brown	Repairing mail bags for	or Post Office In	spector, St. John	7	56
Sun Publishing Co	Stencilling mail bags	do	do	52	20
D. Brown	Repairing mail bag for	Postmaster, S	t. John	6	24
	Т	otal	• • • • • • • • • • • • • • • • • • • •	\$1,039	08

WILLIAM WHITE,

Deputy Postmaster-General.

W. H. SMITHSON,
Accountant.

PROVINCE OF MANITOBA AND THE N-W. TERRITORIES.

DETAIL of all payments for Mail Transportation in Manitoba and the North-West Territories, made within the Year ended 30th June, 1889.

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.			Period.	Amount.
	1		1				' \$ ets
Adelpha and Killarney	H. Mason	20	2	12	mon	ths	240 00
Adelpha and Killarney Aikenside and Chater. Alexander Station and Ry. Station	W. Curle	$12\frac{1}{2}$		12	do		122 20
Alexander Station and Ry. Station	J. F. Walker	$8^{\frac{1}{8}}$	12 1	$\frac{12}{12}$	do do	• • • • • • • • • • • • • • • • • • • •	30 00
Archibald and Beaconsfield	G. Saunders	481		10	do	(to Jan. 31, '89).	75 00 $575 00$
Almasippi and Campbellville Archibald and Beaconsfield Archibald and Mussellboro'	W. Shields	$17\frac{1}{2}$	1	12	do		145 00
Archibald and Mosebray. Archibald and Norquay. Archibald and Railway Station. Arden Station and Railway Statior Ardpatrick and Asessippi Argyle and Stonewall. Arnaud and Dominion City.	do	26 44	$\frac{2}{2}$	$\frac{12}{2}$	do do	(from Fob 1 200)	555 00
Archibald and Railway Station	W. C. Kennedy.	1		12			104 33 $150 00$
Arden Station and Railway Station	M. E. Boughton	1 18	8	12	do		50 00
Ardpatrick and Assisppi	R. H. Marshall.	$\frac{30}{9}$	Ftn'ly	$\frac{12}{12}$	do		110 00
Arrand and Dominion City	J. M. Martineau	9	$\frac{1}{2}$	3	do do	18 days (from	120 00
Titliadd wiid Dominion City	i i i i i i i i i i i i i i i i i i i		_	,	ao	Dec. 14, '88)	62 17
Arnaud and Railway Station	do	$2\frac{1}{2}$	3	8	do	8 days (to Dec. 8, '88)	
Arrochar and Railway Station	R McDonald	3	3	12	do	8, (88)	$ \begin{array}{r} 51 & 56 \\ 32 & 00 \end{array} $
Arrow River and Beulah	J. Evans	224		12	do		180 00
Arrow River and Beulah Assessippi and Russell Ash Creek and Moropano	W. Dunkin	15		12	do		300 00
Ash Creek and Moropano	G. M. Jackson	5 4	1	$\frac{12}{12}$	do do		$ \begin{array}{cccc} 52 & 00 \\ 100 & 00 \end{array} $
Assiniboine and Poplar Point Aubigny and St. Agathe Austin and Railway Station Aweme and Two Rivers	F. Roy	7	$\frac{\tilde{2}}{2}$	12	do		125 00
Austin and Railway Station	E. Broadfoot	18	12	12	do		30 00
Aweme and Two Rivers	C. Bellhouse	. 5	1	12	do		60 00
Baie St. Paul and Fortier	J. H. Lavoie	7	1	12	do		. 80 00
Raio St. Paul and Railway Station	IK: L. Kairbanks	: 4	12	12	do	() To est 100)	80 00
Balcarres and Indian Head	J. Morrison	30 27	$\frac{1}{1}$	9 3	do do		258 75 62 50
Balcarres and Indian Headdo do do Balgonie and Loon Creek	B. Woolhouse	30		12		TOTAL CO	260 00
Balgonie and Railway Station	A. R. Dickson	1 8	12	12	do		60 00
Balmerino and BinscarthBalmoral and Pleasant Home	A. Fletcher	18	$\frac{2}{1}$	$\begin{array}{c} 12 \\ 12 \end{array}$	do do		80 00 161 00
Palmoral and Stonewall .	do		9	12	do		131 00
Barnsley, Lintrathen and Railway Station Batoche and Boucher. Batoche and Saskatoon Batthfeed and Fort Pitt & a lee	T D D	1000					
Station	J. P. Parsons	19 & 3	2 & 4	$\frac{12}{12}$	do do		$\begin{array}{c} 377 & 00 \\ 125 & 00 \end{array}$
Batoche and Saskatoon	J. Caron	55	Ftn'ly		do		250 00
Datuelord and Fort Fitt, &c., also	i a a a a a a a a a a a a a a a a a a a	1		1			
Calgary and Fort Saskatchewan.			& wky	12	do		20,061. 84
Beauséjour and Brokenhead	E. A. Dugard	14		12	do		130 00
Beaver Creek and Railway Station.	W. J. Thompson	$5\frac{1}{2}$		12	do	·	41 60
Belleview and Virden	A. Mooney	$\frac{35\frac{3}{4}}{8}$	1 1	$\frac{12}{12}$	do do	(and arrears)	305 95 40 00
Beulah and Elkhorn	G. H. Rowswell.	25	$\frac{1}{2}$	7	do		273 00
do do	G. W. Marsh	25	2	5	do	from do	195 00
Beauséjour and Brokenhead Beaver Creek and Railway Station. Belleview and Virden. Benbecula and Wapella. Beulah and Elkhorn do do Binscarth and Lidford Binscarth and Millwood.	W. H. Gwillim.	8	1	4	do	(from Dec. 1, '88)	17 33
	nan	· · ·	1	4	do	(to July 31, '88).	8 66
Binscarth and Railway Station	A. P. W. Golds-	1	4	e	do	(to Sont 20 200)	13 00
do do	A. G. P. Smellie	16 16	4	6	do	(to Sept. 30, '88).	13 00
do do Binscarth and Shellmouth	A. P. W. Golds-	16					
			2	2	do	(to May 31, '88). (to Aug. 31, '88).	69 33
do do	J. G. Langford	27 27	$\begin{array}{c}2\\\cdot2\\2\\1\end{array}$	3 7 8	do	from do	109 55 297 26
Binscarth and Spy Hill	H. V. Bailey	21		8	do	(from Aug. 1, '88)	133 33
do do	T. S. Rutherford	$12\frac{1}{2}$	1	3	do	(to June 30, '88).	39 06
do do	C. Hamilton	$12rac{7}{2}$	1	9	do	from do	93 75

		in	No. of Trips per Week.			
27 472	Name	s.	of Trip Week.	75		
Name of Route.	of Contractor.	ile	to 1	Per	od.	Amount.
	Contractor.	Distance Miles.	No. o			
				(
						\$ ets
Bird's Hill and Cook's Creek Bird's Hill and Rallway Station	J. S. McLeod	171	$\frac{2}{6}$		June 30, '88)	$90 00 \\ 124 80$
Directo and Moscomin	G Hume	372	$\frac{3}{2}$			570 00
Birtle and Railway Station	W.G.L.Porteous	1 2	6	12 do		97 48
Birtle and Seeburn. Birtle and Warleigh.	A. Swainson	$\frac{20}{8}$. 1		200	130 00
do do	J. C. Dudley	8	. 1	3 do from	Dec. 31, '88).	55 00 15 00
Blackwood and Indian Head	J. A. L. Black-					
Blythfield and Starbuck	wood	$\frac{13}{9}$	1		n Jan. 1, '89)	18 50 80 00
Boissevain and Desford	A McKnight	24				$\frac{0000}{12500}$
Boissevain and DesfordBoissevain and Heaslip	G. F. Brown	$18\frac{1}{2}$	$\frac{2}{2}$	12 do		300 00
Boissevam and Langvale	H. Hammond	23	$\frac{2}{6}$			275 00
Boissevain and Railway Station Boissevain and Wapaha	W A Munro	128	1		April 30, '88)	50 00 10 55
do - do	J. Sheppard		1	4 dys (to M	av 4 '88\	1 37
Boissevain and Whitewater	do	8	1	10 months, 2	7 days (from	
Bosourvis and Moosomin	W. A. Turriff	117	1	12 do	ay 5, '88)	$75 ext{ } 43 \\ ext{ } 890 ext{ } 00$
Boscurvis and Moosomin	T, Levins	14	i	10 1		90 00
Brandon and Minnewawa	H. M. Sage	27	2	3 do (to J	une 30, '88).	130 00
do do do do	W. D. Matheson R. Crompton	$\begin{array}{c} 27 \\ 27 \end{array}$	$\frac{2}{2}$	6 do (to l 3 do from	Dec. 31, '88).	$\frac{260\ 00}{130\ 00}$
do do Brandon and Olivedale	D. Reed	12	$\frac{2}{2}$		a Jan. 1, '89)	$\frac{150}{32} \frac{00}{50}$
Brandon and Pendennis	W. J. Sargent	17	1	9 do (to 1	Dec. 31, '88).	97 50
do do	do	20	1	3 do from		48 00
Brandon and Rapid Citydo	A. Stewart	$\frac{20}{20}$	6		Dec. 31, '88).	900 00 187 50
Brandon and Railway Station	A. Munro	: ‡	14	12 do		334 80
Brandon and Souris	R. B. Kirchoffer	$25\frac{1}{2}$	3	140 3		650 00
Brandon and Two Rivers Bridge Creek and Railway Station.	W. Telford R. Campbell	$\frac{33\frac{1}{2}}{3}$	2			680 00 $117 00$
Brierwood and Roden	D. Aitken	6	i			50 00
Broadview and Railway Station	J. Clementson	18	12	12 do		100 00
Brookdale and Carbery	J. W. Newton H. Glass	- 90	$\frac{1}{1}$	3 do (to J 9 do from	une 30, '88).	37 50
Brunton and Railway Station			1		July 1, '88)	67 50 19 50
Burnside and Railway Station	W. A. McIntosh	51	2	12 do		180 00
Butterfield and Workman	W. A. W. Smith	22	1			175 00
Cadurcis and Minnedosa	W. A. Smith F. Bolton	6 6	$\frac{2}{2}$			$\begin{array}{c} 156 \ 00 \\ 130 \ 00 \end{array}$
Calgary and Mosquito Creek	Stewart Ranche	56	ī	40 9		1,080 36
	Co	1	10	19 4.		200.00
Calgary and Railway Station Camille and Trehern Ry. Station	W. Cooper	10^{8}	$\frac{12}{2}$		Dec. 31, '88).	300 00 150 00
do do	J. Palmer	10	2	3 do from		52 00
Carberry and Railway Station,	H. A. Perley	$16\frac{1}{5}$	14	12 do	00 200	36 48
Carberry and Wellwood do do	G. R. Black	105 145	$\frac{2}{2}$	3 do (to J 9 do from	une 30, '88).	$62 50 \\ 171 75$
Carlingville and Oak River	S C Dingmore		ĩ	3 do (to J	une 30, '88).	60 00
do do	J. L. Fraser	17	1	9 do from	do	131 25
do do Carlyle and Clare do do Carlyle and Clare	T. Hislop	13 13	1	3 do (to J 6 do (to I	une 30, '88). Dec. 31, '88).	37 50
Carlyle and Dennington	W. D. Kisbey	8	1	12 do	Jec. 31, 30).	49 00 83 20
Carlyle and Percy	D. McEachen	1.8	1	3 do (fron	Jan. 1, '89)	33 92
Carman and Pomerov	J. Sutton		1			80 00
Carman and Salterville	J. D. Bride	$\frac{4}{40}$	$\frac{2}{1}$	4 00 3		$\frac{104}{396} \frac{00}{00}$
Caron and Railway Station	J. G. Macdonald	18	6			30 00
Carssdale and Regina	E. Carss	22	1			170 00
Cartwright and Railway Station	T. S. Menary	$14^{\frac{1}{8}}$	$\frac{6}{1}$			$\begin{array}{c} 52 & 00 \\ 117 & 00 \end{array}$
Castleavery and Shellmouth Chater and Railway Station	P. Dickson	14	12	10 1		62 60
Clandebove and Selkirk	A. M. Muckle	8	2	3 do (to J	une 30, '88).	40 00
do do	S. H. Ward	. 8	2	9 do from	do	97 50

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
						\$ ets.
Clarkleigh and Lundyville Clarkleigh and Reaburn Clarkleigh and Seamo	J. Clark	18 40	1 2	12 de		130 00 328 20
Clearwater and Railway Station	R. Rogers	\$	1 6	12 de		39 00 78 00
Cook's Creek and Winnipeg Craigilea and Roseberry	A Kelso	19	2	9 do		$\frac{225}{104} \frac{00}{00}$
Creeford and Neepawa. Crewe and Fort Ellice. Crystal City and Railway Station.	W. R. Dunlop J. Ellis	$\frac{22}{6}$		12 do		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Crystal City and Railway Station	R. Rollins	1 8	6	12 dc		60 00
Cypress River and Ry. Station Cypress River and St. Alphonse	J. N. Lee	8	4 2	12 do		26 00 130 00
Dalton and Catching Post	J. Parke	1 8		12 do		30 00
Daly and Virdendo	A. Mooney	11 13&11	1		ths 15 days (from	3 09
DeClare and Welwyn	J. Scott.	7	1	12 do		83 23 74 00
Deloraine and Napinka. Deloraine and Railway Station	S. Leach	$\frac{23}{\frac{1}{16}}$	$\frac{1}{6}$	9 do		175 50 50 00
Deloraine and Souristord	A. Cochlan	28	2	9 do	(to Dec. 31, '88)	351 00
Deloraine and Waneche	T. Cochlan A. Stewart	28 20	$\frac{2}{1}$	$\begin{array}{ccc} 3 & \mathrm{do} \\ 12 & \mathrm{do} \end{array}$		128 70 156 00
Deloraine and West Brenda Dominion City and Emerson	S. Leach	32 10	1 3	3 do	(from Jan. 1, '89)	75 00
Dominion City and Ry. Station		1	12	8 do	11, '88) 8 days (to Dec.	95/80
Donore and Railway Station		1章		12 do		55 00 57 20
Douglas Station and Ry. Station Drumconnor and Railway Station	T. E. Greenwood E. Brown	8	6	12 do 12 do		39 00 43 65
Dunbow and Okotoks	R. A. Begg.	10		12 do		133 25
Dunmore Junction and Ry. Station do do	W. A. Kellier	1818	24 24	3 do 9 do		27 00° 81 00
East Selkirk and Railway Station.		3	6	3 do		25 00
do do do do	J. D. Fraser D. McLeod, jr	33	$\frac{6}{6}$	5 do 4 do	(to Nov. 30, '88). from do	41 67 33 33
do do East Selkirk and Selkirk Edgeley Farm and Qu'Appelle Sta-		2	3	12 do		75 00
tion Edmonton and St. Albert Elkhorn and Kola.	W. C. Cameron S. Moran C. W. Wain-	$\frac{6\frac{1}{2}}{9}$	$\frac{2}{1}$	12 do 12 do		200 00 200 00
Elkhorn and Lippentott	wright	$\begin{array}{c c} 18 \\ 20 \end{array}$	1 1	3 do 9 do	(to June 30, '88). (from July 1, '88)	$\frac{23}{108} \frac{75}{75}$
Elkhorn and Railway Station	J. McLeod	1 3	12	12 do		78 00
Elphinstone and Strathclair Station Emerson and Gauthier	J. H. Vanwhort.	$\begin{array}{c} 9\frac{1}{2} \\ 19 \end{array}$	$\frac{2}{2}$	12 do 8 do	(to Nov. 30, '88).	$\begin{array}{cccc} 123 & 76 \\ 223 & 33 \end{array}$
Emerson and Gretna	C. Whitman	18	6	3 do	22 dys (from Dec. 10, '88)	265 79
Emerson and Letellier	J. H. Vanwhort.	$15\frac{1}{2}$	2	4 do	(from Dec. 1, '88) (to June 30, '88)	91 09
Emerson and Green Ridge Emerson and Railway Station	C. Whitman	18	6&24	3 do 8 do	8 days (to Dec.	45 50
Emerson and Stuartburn Emerson and West Lynne	J. H. Vanwhort. W. D. Hamilton	$\begin{bmatrix} 29\frac{1}{2} \\ 1 \end{bmatrix}$	$\begin{array}{c} 1 \\ 12 \end{array}$	9 do 8 do	8, '88) (from July 1, '88) 8 days (to Dec.	165 21 253 50
Erinview and Stonewall	A. J. Bell	25	1	9 do	8, '88) (to Dec. 31, '88),.	129 11 124 98
do do		25	1	3 do	from do	43 75
do do	J. Vas	$\begin{bmatrix} 7\\7 \end{bmatrix}$		11 do 1 do	(to Feb. 28, '89). from do	44 00-
Fairfax and Souris		9		12 do	(4. D., 91: 700)	100 00
Fairmede and Wapellado do	H. A. Hall	$\begin{array}{c c} 16 \\ 16 \end{array}$	1	9 do 3 do	(to Dec. 31, '88) from do	136 50 31 25
Ferndale and Hillburn	W. Moran	7	1	12 do		52 00:

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
Fernton and Winnipeg Fleming and Railway Station Fort Alexander and Peguis	C. F. Bridgman. M. Morrison	$\frac{4}{50}$	3 12 Ftn'ly	12 de	aths (fromJuly1, '88)	\$ ets. 93.75 60.00
Fort Francis and Rat Portage Fort McLeod and Lethbridge Fort McLeod and New Oxley	C. Lewis F. Strong Stewart Ranche	160 30	Ftn'ly	12 do		182 00 960 00 750 00
Fort McLeod and Pincher Creek do do do Fort Saskatchewan and Pakan	M. Brouillette	32 32	$\frac{1}{2}$		(to June 30, '88).	686 24 142 50 356 25
Gladstone and Golden Stream Gladstone and Mekiwin	mus	55 8 15	2	12 do 12 do		$\begin{array}{c} 650 & 00 \\ 78 & 00 \\ 225 & 00 \end{array}$
Gladstone and Plumas	J. L. Logie V. J. Beaupré S.Christopherson	1 1 1 1 1 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	8 12 2	$\begin{array}{ccc} 12 & \mathrm{do} \\ 12 & \mathrm{do} \end{array}$		$\begin{array}{c} 160 \ 00 \\ 100 \ 00 \\ 60 \ 00 \\ 100 \ 00 \end{array}$
Glenboro' and Railway Station Glenboro' and Sittakaw	F. W. Lipsett	4 7	$\begin{bmatrix} \frac{7}{4} \\ \frac{2}{2} \\ 1 \end{bmatrix}$	12 do 6 day 8 do	s (to April 6, '88) (to Nov. 30, '88).	$\begin{array}{c} 30 & 00 \\ 1 & 71 \\ 69 & 33 \end{array}$
do do Glendinning, Pilot Mound and Rose- berry.	A. F. Andrews. J. M. Fraser	9 29 1 , 22	1	$egin{array}{ccc} 2 & ext{do} \ 12 & ext{do} \ \end{array}$	from do .'	26 00 26 00 450 00
Gonor and Railway Station	C. Nolin L. G. Ramsay R. Routh	17 $11\frac{1}{2}$	$\begin{bmatrix} 2\\1\\1\\1\\12 \end{bmatrix}$	3 do	(from Dec. 1, '88). (to June 30, '88).	100 00 46 66 31 25 78 00
Gretna and Reinland. Gretna and Railway Station Griswold Station and Ry. Station. Griswold Station and Viola Dale.	G. Lindsay	$ \begin{array}{c c} 17 \\ \hline & \frac{1}{4} \\ \hline & 42 \\ \hline & 42 \\ \hline & 4 \\ \end{array} $	$\begin{array}{c} 2 \\ 14\&18 \\ 12 \\ 1 \end{array}$			165 00 159 00 80 00
do Hanlan and Meadow Lea Harrowby and Railway Station	G. E. Brown J. Macdonald S. Blane	$42\frac{1}{2} \\ 6\frac{1}{2} \\ \frac{1}{4}$		12 do	1889) (from Feb. 1, '89)	$\begin{array}{r} 476 \ 16 \\ 74 \ 16 \\ 52 \ 00 \\ 25 \ 00 \\ \end{array}$
Hayward and Qu'Appelle do do Helmsdale and Winnipeg High Bluff and Railway Station	H. H. Hayward.	$\begin{array}{c c} 12 \\ 12 \\ 4 \end{array}$	$\begin{array}{c} 1 \\ 1 \\ 3 \end{array}$	3 do 9 do 2 do	(to June 30, '88). from do (to June 30, '88).	32 50 60 00 20 83
Holland and Railway Station Holmfield and Railway Station Hun's Valley and Minnedosa	J. F. Holland T. S. Young J. Murchison	18	$\begin{bmatrix} 4 \\ 6 \\ 1 \end{bmatrix}$	12 do 12 do 6 do	(to Sept. 30, '88).	70 00 $40 00$ $60 00$ $71 25$
Icelandic River and Peguis	M. Raby S. Jonasson S. Sigurdson	$ \begin{array}{c c} 18 \\ 65 \\ 60 \\ \frac{1}{8} \end{array} $	Ftn'ly do 12	3 do	from do (to June 30, '88). from do	$\begin{array}{c} 64 & 50 \\ 93 & 75 \\ 258 & 75 \\ 80 & 00 \end{array}$
Indianford and Trehernedo doIndian Head and Railway Station.	H. Hamilton	12	12	12 do	(to Dec. 31, '88, and arrears) (from do	47 32 19 50 156 00
Joly and Otterburnedo do do do Joly and Ste. Agathe	E. Vinette A. Lafrance	$\frac{1}{8}$ $\frac{6}{6}$ $\frac{6}{15}$	3 3&6 3 2	3 do 5 do 1 do 2 do	(to June 30, '88). 8 dys (to Dec.8, '88)	$\begin{array}{c} 33 & 00 \\ 30 & 24 \\ 4 & 16 \end{array}$
Joly and Steinbach	E. Vinette	34 36	$\begin{vmatrix} 1\\1\\12\end{vmatrix}$	3 do 9 do 4 do	(from Dec. 1, '88)	20 83 43 75 90 00 8 33
Kelloe Station and Railway Station. Kennay and Railway Station. Kemnay and Railway Station.	J. Higham J. A. Scott	$ \begin{array}{c c} 22 \\ 1 \\ \frac{1}{8} \\ \frac{1}{16} \end{array} $	6	5 do 12 do 12 do 12 do		$\begin{array}{c} 37 & 91 \\ 312 & 00 \\ 31 & 20 \\ 30 & 00 \end{array}$
Killarney and Railway Station Killarney and Rowland Kinistino and Prince Albert	C. BateJ. Russell	$16\frac{1}{4}$ $48\frac{1}{2}$		12 do 12 do 3 do		$\begin{array}{c} 52 & 00 \\ 234 & 00 \\ 131 & 25 \end{array}$

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	5		Period.	Amount.
							\$ ets.
Kinistino and Puckahn		25				hs (to Dec. 31, '88)	189 00
Kinosota and Westbourne La Broquerie and Winnipeg			$rac{ ext{do}}{2}$				$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Langenburg and Railway Station	P. Ulrich	1	2	12	do		25 00
Langvale and Ninette.	J. Overend	8	$\frac{1}{6}$				$ \begin{array}{cccc} 104 & 00 \\ 52 & 00 \end{array} $
Langvale and Ninette. Larivière and Railway Station. Lebret and Qu'Appelle	J. P. Magnan	$4\frac{1}{2}$					104 00
Lennox and Montefiore	H. Mantz	14 & 8	1	12	do		123 50
Lethbridge and Railway Station do do	J. D. Higinboth-	18	12	4	clo	(to July 31, '88).	86 66
	am	1 8	12		do	from do	166 66
Lintrathen and Roseisle					do		88 40
Lowestoft and Morden	W. H. Lowe		1	12	do		160 00
McGregor Station and Ry. Station.	T. R. Vardon	8	6				40 00
McGregor Station and Wellington. McLean and Railway Station	W.J. Thompson	8	$\frac{1}{6}$				$\begin{array}{ccc} 72 & 80 \\ 150 & 00 \end{array}$
Maple Creek and Railway Station	J. Dixon	$\frac{1}{2}$	12				156 00
Marieton and Regina	S. Beach	1	1	12	do		453 04
Marieton and Strassburg Marlborough and Moose Jaw	J. G. Beesley	16 14	1	12 12	do		$125 00 \\ 104 00$
Marney and Newdale	S B Baxter	7	• 1	12	do		46 80
Marringhurst and Otenaw Medicine Hat and Railway Station.	A. W. Playfair.	15	$\frac{1}{12}$	$\frac{12}{12}$	do.		124 80
Medora and Princess	W. Cosgrove	5	1	6	do	(from Oct. 1, '88).	187 20 19 50
Medora and Princess Melgund and Souris. Melita and Sourisford.	W. A. Dolmage.	20	2	12	do		400 00
Melita and Sourisford	R. M. Graham.	10	1 1	5 3	do do	(to Aug. 31, '88). (from Jan. 1, '89)	48 75 18 75
Miami and Morden	J. G. Blair	19	2	12	do	(Hom ban. 1, 65)	215 00
Millbrook and Queen's Valley	J. Davies.	$7\frac{1}{2}$			do	(from July 1, '88)	35 10
Millwood and Spy Hill	H. V. Bailey	$\frac{12}{\frac{1}{2}}$	$\frac{1}{8}$	$\frac{4}{12}$	do	(to July 31, '88).	43 33 84 50
Minnedosa and Scandinavia	C. Johanson	20	1	12	do		200 00
Moffat and Wolseley	E. A. Banbury.	9	2				124 00
Moline and Rapid City Montgomery and Whitewood Sta-		1	1	12	ao		120 25
tion	T. B. O'Donohue	20	1	12			182 00
Moose Jaw and Railway Station Moosomin and Railway Station	J. A. Whitmore.	9	$\begin{array}{c c} 12 \\ 12 \end{array}$	$\frac{12}{12}$			200 00
Moosomin and Redpath	J. Deavitt	41	1	12	do .		$\begin{array}{cccc} 125 & 00 \\ 249 & 00 \end{array}$
Morden and Railway Station	J. M. Grover	18	12	5	do	6 days (to Sept.)	
do do	J. H. Dunsford	1 8	12	6	do	6, '88)	54 40
		1	1.2		ao	Sept. 6, '88)	70 40
Morden and Stodderville	J. Stodders	10	2	12			176 80
Morris and Railway Station Morris and St. Jean Baptiste	P. Parenteau	68	12	$\frac{12}{12}$	do		$\frac{40\ 00}{135\ 00}$
							100 00
Neepawa and Oberon	J. McIntyre S. Farrell	13	$\begin{vmatrix} 2\\2 \end{vmatrix}$	3 9		(to June 30, '88).	$78 00 \\ 156 00$
Neepawa and Orange Ridge	P. Winter	12	1	12	do	from do	189 00
Neepawa and Orange Ridge Neepawa and Railway Station	J. McIntyre	34	8	3		(to June 30, '88).	26 00
do do	A. M. Dalton	4	8 2			from do	81 90 156 00
Neepawa and Salisbury Nelson and Opawaka	P. Angers	85	1	1.2	do		156 00 75 40
Newdale and Railway Station	J. L. Cook	1			do		67 00
Newdale and Raven's Glen Niverville and Otterburne	M. Champagne	7.	1		do cial	trips	52 00 2 50
Niverville and Railway Station	S. Lawson	1	12	3 m	os. (to June 30, '88)	6 25
	F. J. Alden					,	
		1	1	5	uo	8 days (to Dec. 8, '88)	10 93
Niverville and Royal	W. Gallie	$9\frac{1}{2}$		2	do	8, '88) (from Feb. 1, '89) (to Dec. 31, '88).	26 00
Norman and Railway Station	J. B. Davies J. B. Nadon	17	6	9	do	(to Dec. 31, '88).	74 90 30 00
	10						50 00

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	Period.		Amount.
						\$ ets.
Oakburn and Shoal Lake	J. A. Hamilton.	9	2	12 n	nonths	156 00
Oak Lake and Railway Station	G. D. Miller	118-15	12	12	do	78 00
Oakland and Portage la Prairie Oak River and Tatonka	J. Reid	14&17	1 1		do (to June 30, '88).	$\begin{array}{c} 127 & 50 \\ 26 & 00 \end{array}$
do do	J. H. Stewart	8	1	9	do from do	67 50
Orrwold and Raven Lake Ossowo and Poplar Point	J. Brownridge F. Wagner	12	$\frac{1}{2}$		dodo	$104 00 \\ 159 00$
Otterburne and Railway Station	J. L. Ewing	18	12		do 8 days (to Dec. 8,	
Otterburne and Royal	J. Rougeau	17	2	3	'88) do 21 days (from	17 18
					Dec. 11, '88)	43 80
Parkin and Wapella Parklands and Qu'Appelle	T. Murray	11	1		do do	75 00 75 00
Pasqua and Railway Station	H. U. Rorison	1 5	6	12	do	72 00
Peguis and Poplar Park Peguis and Selkirk	J. Morrey	$\frac{8}{6\frac{1}{2}}$	$\frac{1}{2}$		do do	57 20 150 00
Penrith and Virden	W. F. Scarth	19	1	12	do ob	166 64
Pense and Railway Station Pheasant Forks and Wolseley	A. Blair	$39\frac{1}{2}$	12		do do	
Pigeon Lake and Winnipeg	E. Bourke	25^2	2	12	do	
Pilot Mound and Railway Station Poplar Point and Railway Station	J. M. Fraser	83	$\frac{6}{12}$		do do	
Portage la Prairie and Ry. Stations.	W. W. Miller	1 & 3	12&14		do	84 00 487 48
Portage la Prairie—C. P. Ry. and		150 y's		3	do (from Jany, 1, '89	
M. and N. W. Ry. (transfer) Prince Albert and Puckahn	R. Pritchard	231			do (from Jany. 1, '89 do (to Dec. 31, '88)	12 50 170 49
Prince Albert & Qu'Appelle Station.	Leeson & Scott	253	1		do	7,900 00
Qu'Appelle and Qu'Appelle Station. Qu'Appelle Station & Ry. Station	S. S. Nelson	13	6 12		do do	470 00 140 40
Rat Portage and Railway Station	W. Oliver	1 4	$\frac{24}{2}$		do	250 00
Raven Lake and Shoal Lake Reaburn and Railway Station	W. J. Paterson	4123	12 & 14		do do	130 00 168 00
Reaburn and Woodlands	J. Porteous W. W. Keeling	13	2		do (to June 30, '88).	24 62
do do	M. Slater	13	2		do (to Feb. 28, '89) do from do	$\begin{array}{c c} 100 & 00 \\ 12 & 50 \end{array}$
Regina and Railway Station	J. C. Irvine	1 3	12		do (to Sept. 30, '88)	156 00
Reinland and Schauzenfedt	B. Loewen	9	12		do from do do	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$
Richland and Winnipeg	J. Hourie	403	2		do (to June 30, '88)	161 92
do do Rossburn and Salsgirth	P. Blondin R. R. Ross	$\frac{37\frac{3}{4}}{16}$	$\frac{2}{2}$		$egin{array}{lll} ext{do} & ext{from} & ext{do} & \dots & \dots \\ ext{do} & ext{do} & ext{do} & ext{do} & ext{do} \end{array}$	$\begin{vmatrix} 375 & 00 \\ 200 & 00 \end{vmatrix}$
Rosser and Railway Station	P. J. Sherlock	1 18	12	12	do	30 00
Rounthwaite and Stratherne Ste. Agathe and Winnipeg	A. Bernier	$\frac{4}{25\frac{1}{2}}$	$\frac{2}{1}$		do do	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$
St. Boniface and Winnipeg Saltcoats and Railway Station Selkirk and Winnipeg	M. Petrim	1	12	12	do	350 00
Saltcoats and Railway Station Selkirk and Winnipeg	J. McNabb	221	$\frac{1}{3}$		do (from Dec. 1, '88) do	$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Shadeland and Thornhill	H. C. Sweet	1 06	2	12	do	160 00
Shoal Lake and Railway Station	M. W. Thompson T. Babb	32 32	$\frac{6}{2}$		do do	45 00 52 00
Silver Spring and Railway Station	K. Armstrong		$\begin{bmatrix} 2\\2\\3 \end{bmatrix}$	12	do	130 00
Sintaluta and Railway Station	C. G. Booth	1	3		do (to June 30, '88) do from do	8 00
Solsgirth and Railway Station	J. C. Anderson	! [8	12	do	24 00 50 00
Sourisford and West Brenda Starbuck and Railway Station	F. L. Ketcheson.	18	1 4		do (to Dec. 31, '88)	52 00
Stonewall and Railway Station	C. V. Tottle	1 2	6	12	do	30 00 46 20
Stonewall and Wavy Bank	J. Graham	8	$\frac{1}{12}$		do do	75 00
Stony Mountain and Ry. Station Strathclair Station and Ry. Station.			8	12	do	100 00 40 00
Summerberry and Railway Station.	J. H. Love	1 1	$\frac{6}{12}$		dodo	60 00
Swift Current and Ry. Station Thornhill and Railway Station	W. Bradley	818	12	12	dodo	96 00 39 00
Touchwood Hills and Wishart	J. Hall	10	1	12	do	80 00

Name of Route.	Name of. Contractor.	Distance in Miles.	No. of Trips per Week.		Period.	Amount.
do do Vermilion Bay and Ry. Station do do	C. F. Keller P. S. Keller W. McLaughlin. W. Montgomery J. A. Crawford. W. F. Scarth T. G. Lyons E. P. Benoit Smalley & Chant- ler J. S. Corregan T. G. Lyons J. Sheppard do Powell & Bliss J. P. Dill M. Campbell J. Hallett	103	12 As req 21 12 3 1	3 do 3 do 8 do 1 do 3 do 12 do 12 do 12 do 12 do 12 do 12 do	from do (to Nov. 30, '88) (to Dec. 31, '88) from do	\$ cts. 52 00 26 00 39 00 16 00 2 00 6 00 78 00 78 00 130 00 78 00 994 00 300 00 65 00 52 00 30 00 \$79,147 92

W. H. SMITHSON,
Accountant.

WILLIAM WHITE,

Deputy Postmaster-General.

DETAIL of all payments for Mail Transportation in Manitoba and the North-West Territories, made within the Year ended 30th June, 1889.

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Name of Railway.	Distance in Miles.	No. of Trips per Week.	Period.	Amount.
Canadian Pacific Railway (within Manitoba)	$1,373\frac{1}{2}$	With varying frequency over different sections of		ets.
Manitoba and North-Western Railway North-West Coal and Navigation Co.	155 109	the line.	12 months (to 31st March, 1889) 12 do do do	71,128 40 3,912 22 2,078 59
		den et en		\$77,119 21

WILLIAM WHITE,
Deputy Postmaster General.

Accountant. W. H. SMITHSON,

Detail of all payments for making and repairing Mail Bags, Mail Locks, &c., in Manitoba and the North-West Territories, made within the Year ended 30th June, 1889.

Tradesmen's Names.	Particulars of D	isbursement	S.		Amount	t .
S & H Dowlyidge	Mail bags, labels and repairs for	Post Office I	Donortmon		\$ ct	ts.
S. & H. Borbridge	Man bags, labels and repairs for	rost Office 1	Departmen	16	149	04 .
R. S. Montgomery	Mail bags, rivet seals and repairs	3	do		183	10
G. Bailey	Repairing mail locks		do		8	00
Smith & Egge Manu. Co.	Mail locks and keys		do		7	00
E. Chanteloup	Mail lock keys		do		2	00
		Total			\$349	14

WILLIAM WHITE,

Deputy Postmaster-General.

W. H. SMITHSON,
Accountant.

PROVINCE OF BRITISH COLUMBIA.

DETAIL of all payments for Mail Transportation in British Columbia, made within the Year ended 30th June, 1889.

		ij.	8 .	,		
	3.7		No. of Trips per Week.			
Name of Douts	Name of	Distance Miles.	f T We		Davidad	A
Name of Route.	Contractor.	ile	0 2		Period.	Amount.
	Contractor.	\(\tilde{\ti}	15 g			
			-	1		
			!			\$ cts.
1. 1. 2. 2		1 .	_	1		
Agassiz and Ry. Station	L. A. Agassiz	4	j 5		nths	60 00
Alberni and Sayward Alberni Aldermove and Mount Lebman	C. Taylor, Jr.	$\begin{bmatrix} 2^{\frac{3}{4}} \\ 9 \end{bmatrix}$	$\begin{vmatrix} 2\\1 \end{vmatrix}$		o (and arrears)	$75 00 \\ 100 00$
Alkali Lake and Clinton	N Hanlon	80	1&f'ly		0	1,000 00
Anthracite and Catching Post	A. Morgan	1	12	12 d	0	50 00
Ashcroft and Ry Station	H. P. Cornwall.	$\frac{1}{2}$		12 d	0	105 00
Agassiz and Ry, Station Alberni and Sayward Alberni Aldergrove and Mount Lehman Alkali Lake and Clinton Anthracite and Catching Post Ashcroft and Ry Station Ashcroft Station and Barkerville.	B. C. Express Co	279	1	1 d	o (to June 30, '88).	1,545 00
Asheroit Station, Clinton, Darker			0.04		/C T I 1 100)	00.000.00
ville and Lillooet Ashcroft Station and Lillooet	do	$\begin{vmatrix} 250, 47 \\ 77 \end{vmatrix}$	3&1	11 de		$22,000 00 \ 455 00$
Asheroft Station and Ry. Station	T G Kirknatrick	2007/2	$1\frac{1}{2}$		o (to June 30, '88). o (to June 30, '88).	45 00
do do	W. B. V. Bailey	do do	12		o from do	135 00
do do Banff and Ry. Station	R. Frank	. 3	12		o 8 days(to June 8.	200 00
	1				1888)	34 91
do do	R. G. Brett	1 2	12	12 d	0	260 00
Boayon Point and Programs Por	A Malannar	. 50	F't'ly			700 00 150 00
Beaver Point and Burgoyne Bay Burgoyne Bay and Wharf	A. McLennon	$\frac{10}{2}$			o	50 00
Burrard Inlet and Rv. Station	G. Black	. [200v's	12		0	60 00
Canmore and R.V. Station	J. Chemier	1 4	12	12 d	0	60 00
Cedar and Nanaimo	J. Hill	. 1.0°	1	12 d	0	80 00
Cedar and Nanaimo Chemainus and Ry. Station do do Chilcoten and Soda Creek	H. Croft	. 4	6		o (to Feb. 28, '89).	110 00
do do	H. Hague	4.4	F't'ly	1 d	o from do	10 00
Chilcoten and Soda Creek	J. Samon	40	& m'ly	19 d.	0	268 75
Chilliwack and Ry Station	J. F. Harrison	$6\frac{1}{2}$	5 m Ty	12 d	o	650 92
Chilliwack and Sardis	A. S. Vedder	$\frac{3^2}{3}$	3		0	100 00
Chilliwack and Sumas.	D. McGillivray.	. 6	5	1 de	o (from Mar. 1, '89)	22 00
Chilliwack and WharfCobble Hill and Ry. Station	C. P. Navigat. Co	14			n 1888	32 50
Cookers and ProStation	H. T. Porter	40yds			nths	24 00
Cochrane and Ry. Station	G T Corfield	13	$\frac{7}{6}$	12 de	0	150 00 180 00
Cowichan and McPerson's Station	H. H. Welch	12	0		al trip	1 50
Cranbrook and Donald	E. Bray	200	F'tl'v	Бреси	· · · · · · · · · · · · · · · · · · ·	1 00
			& m'ly		nth (to Apr.30, '88).	150 00
Cranbrook and Golden	F. P. Armstrong	200	do		o (from May 1, '88).	907 50
Donald and Ry Station	G. H. Preswell.	$22^{\frac{1}{2}}$	12	12 de 5 de		$\begin{array}{cccccccccccccccccccccccccccccccccccc$
Douglas Lake and Quilchena Duck and Pringle and Ry. Station.			1		o (from Nov.1, '88).	60 00
Duck and Fringle and Ry. Station. East Wellington and Nanaimo. Elgin and New Westminster. Emory and Yale. Enderby and Sicamous. Enderby, Sicamous and Vernon. Esquimalt and Victoria. do do Gabriola Island and Wharf. Golden and Ry. Station. Goldstream and Ry. Station. Granite Creek and Lower Nicola.	W. Badcock	3	6		0	180 00
Elgin and New Westminster	D. Stewart	12	Ĭ	12 d	0	120 00
Emory and Yale	F. W. Geisler	5	1	12 d	0	50 00
Enderby and Sicamous	A. Schubert	36	1w. 2s.	5 d	o (to Aug. 31, '88).	.75 00
Enderby, Sicamous and Vernon	W G Bowmon	26&24	2&1 24	7 d 3 d		$\frac{315}{100} \frac{00}{00}$
do do	C. J. King	4	24		o from do	225 00
Gabriola Island and Wharf	A. Shaw, ir	$2^{\frac{3}{4}}$	2	12 d		60 00
Golden and Ry. Station	R. Lang	400y's	12	12 d		120 00
Goldstream and Ry. Station	J. Phair	1 3	6	12 d		120 00
Granite Creek and Lower Nicola	W. T. Thompson			12 d		240 00
Granite Creek and Princeton Hall's Prairie and New Westminster	H T Thrift	$\frac{12}{23}$	1	$\begin{array}{ccc} 4 & \mathrm{d} \\ 12 & \mathrm{d} \end{array}$		$\begin{array}{cccc} 20 & 00 \\ 275 & 00 \end{array}$
Harrison River and Ry Station	T Barkon	1	4	12 d		60 00
Hope and Ry. Station	J. Wardle	2^2	6	12 d		159 50
Illicillewaet and Ry. Station	W. T. Artherton	$\frac{1}{8}$		12 d	0	40 00
Hope and Ry. Station. Illicillewaet and Ry. Station. Johnson's Landing and Matsqui Kamloops and Okanagon Mission.	R. C. Garner	$5\frac{1}{2}$	2	12 d		180 00
Kamloops and Okanagon Mission	A. Schubert	120	1 10	12 d	0 15 '88\	1,200 00
Kamloops and Ry. Stationdo do	E H Jones	1	12 12	11 mo	ys (to Apr. 15, '88). onths, 15 days (from	15 00
40 40	In II. Ouros	1	12	LI IIIO	April 15, '88)	350 00
	1.	12		1		33,00

Detail of all payments for Mail Transportion in British Columbia, made within the Year ended 30th June, 1889—Concluded.

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	Period.		Amour	nt.
	V STATES OF BATTER CONTROL OF STATES	1				\$	cts
Kamloops and Spence's Bridge	J. Clark	100			ths	1,800	
Kananaskis and Mail Catching Post	J. A. Walker	100 y's	12	12 do			00
Koksilah and Railway Station	O. J. J. Wilkie	30 y's	6 5	12 do 12 do		296	$\frac{00}{31}$
Langley and Railway Station Lytton and Railway Station	L. Cuvreau	34	3 & 12	12 do		105	
McPherson's Station and Ry. Station	G. Jones	1 70 y's	6	12 do			00
Maple Bay and Railway Station	J. Kier	6	3	12 do		. 180	
Matsqui and Mount Lehman	T. H. Lehman	5	$\frac{3}{12}$	12 do 12 do		220 180	
Metchosin and Victoria	J. Parker	25	1	12 do		250	
Millward and Railway Station	J. McDougall	3	2	12 do		100	00
Morley and Railway Station	R. Scott	100 y's	12	5 do		10	99
Vanaimo and Railway Station	I Ganner	1	24	12 do	15, '88)	300	. 33 . 00
Nanaimo and Railway Station Nanaimo and Sayward Alberni	W. Armstrong.	54		12 do		619	
New Westminster and Port Moody.	W. E. Falls	6	6	3 do	(to June 30, '88).	150	
New Westminster and Ry. Station.	A. Heffren	1 4	12			180	
$egin{array}{ccc} ext{New Westminster and Vancouver} & ext{do} & ext{do} & ext{} \ \end{array}$		$\begin{array}{c c} 12 \\ 12 \end{array}$		12 do 12 do		465 600	
North Bend and Railway Station		100 v's	6	12 do			00
North Sagnich and Victoria	H Simpson	9.1	2	12 do		445	
Okanagon Mission and Osoyoos	J. Brent	85	Mthly	12 do		414	
Okanagon Mission and Osoyoos Otter Point and Victoria do do	T. Tugwell	30	1	6 do		100 100	
Osovoos and Rock Creek	I Bront	30	Mthly	6 do		220	
Osoyoos and Rock Creek	W. J. Harris	100 v's	3	12 do			00
Port Haney and Railway Station	D. Docksteader.	50 y's	12	12 do		60	00
Port Moody and Mail Catching Post	J. Tavs	1 3	12	12 do			00
Quadra and Wharf	R. T. Swan	13	$\frac{1}{6}$	12 do 12 do		180	00
Revelstoke and Railway Station	J. Liberty	14	12	12 do		365	
Roger's Pass and Railway Station.	J. M. Carroll	150 y's		12 do		50	00
Salt Spring Island and Wharf	J. Broadwell	3	Asrea	12 do		150	
Savona's Ferry and Railway Station	J. H. Macnab	30 y's	12	12 do		$\frac{40}{140}$	00
Sea Island and Vancouver	A McBryan	200 77'9	$\frac{3}{6}$	7 do 12 do			00
Shuswap and Railway Station Sicamous and Railway Station Somenos and Railway Station	S. Appleby	400 y's	12	12 do		120	
Somenos and Railway Station	J. Kier	$1\frac{1}{2}$	6	12 do		180	
spence's Bridge and Ry. Station	J. Murray	1 2	12	12 do		100	
Sumas and Railway Station,	D. W. Miller	14	5	12 do 12 do		$\frac{414}{124}$	
Sumas and Upper Sumas	H. A. Berry	14	12	12 do		280	
Vancouver and Street Letter Boxes.	J. J. Tierney		6		(from June 1, '88)	200	
Vancouver and Wharf	H. A. Berry	3	12			190	
do do	do		10		l trips	$\frac{37}{292}$	50
do do do	W. G. Bowman.	3	12		ths		50
do do	J. Smith	3	12	9 mos	. (from July 1, '88)	316	
Victoria and Wharf	Victoria Transfer						
	Co	1	12			360	
Whomosk and Railway Station	J. Hill	2	$\begin{array}{c} 12 \\ 12 \end{array}$			120	00 00
Wellington and Railway Station Whomock and Railway Station Yale and Railway Station	W. Teague.	100 v,4	$\frac{12}{12}$	$\begin{array}{c c} 12 & do \\ 12 & do \end{array}$			00
Some state of Someton	Longue	200 3 8					
				,	Total	\$44,783	70

W. H. SMITHSON,
Accountant.

WILLIAM WHITE, Deputy Postmaster-General.

DETAIL of all payments for Mail Transportation in British Columbia, made within the Year ended 30th June, 1889.

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CONVEYANCE OF MAILS BY STEAMBOATS
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Amount.	* cts. 3,000 00 2,000 00 2,000 00 1,800 00 1,800 00 1,625 00 16,000 00 8,00
Period.	1 12 months (to 31st March, 1889) 1 per month 12 do do 2 s. & 1 w. 12 do do 3 1 6 do (to 30th Sept., 1888). 3 3 do (to 30th June, 1889). 1 12 do do (to 31st March, 1889). 6 12 do do As required 13 trips. Total.
No. of Trips per Week.	1 12 1 12 1 12 1 12 1 12 1 12 1 12 1 1
Distance in Miles.	100 600 8 50 33 8 60 9 0 8 60 9 0 8 60
Name of Contractor.	W. Rogers J. D. Warren D. McPhaiden. J. H. Turner. W. F. Stewart. C. P. Navigation Co. G. P. Railway Co. Oregon Ry. and Nav. Co. H. Saunders. C. P. Ry. and Steamship Co.
Name of Route.	Comox, Nanaimo and New Westminster Fort Simpson and Victoria Moodyville and Vancouver Nanaimo and Victoria New Westminster and Sea Island New Westminster and Victoria New Westminster, Victoria and Chilliwack Vancouver and Victoria Victoria and Port Townsend, U.S. Victoria and Port Townsend, U.S. Victoria and Port Townsend, U.S. Victoria, Skeena and Way Ports. Let ada, China and Japan C.

N.B.—For Special Mail Subsidies and Steamship Subventions, see page 9.

WILLIAM WHITE, Deputy Postmaster-General.

W. H. Smithson, Accountant.

Detail of all payments for Mail Transportation in British Columbia, made within the Year ended 30th June, 1889.

CONVEYANCE OF MAILS BY RAILWAYS.

Name of Railway.	Distance in Miles.	No. of Trips per Week.	Period.	Amount.
Canadian Pacific Railway (within British Columbia). Esquimalt and Nanaimo Railway	$\frac{650\frac{1}{2}}{78}$	6 6	12 months (to 31st March, '89). 12 do do Total	\$ cts. 36,117 18 3,893 76 \$40,010 94

W. H. SMITHSON,
Accountant.

WILLIAM WHITE,

Deputy Postmaster-General.

DETAIL of all payments for making and repairing Mail Bags, Mail Locks, &c., in British Columbia, made within the Year ended 30th June, 1889.

Tradesmen's Names.	Particulars of Disbursements.	Amount.
S. & H. Borbridge	Lead rivet seals, &c., do Mail locks and keys do do	\$ cts. 203 90 15 50 2 16 16 25 10 50 4 14 \$252 45

W. H. SMITHSON,
Accountant.

WILLIAM WHITE,

Deputy Postmaster-General.

PROVINCE OF PRINCE EDWARD ISLAND.

DETAIL of all payments for Mail Transportation in Prince Edward Island, made within the year ended 30th June, 1889.

	•				
Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	· Period.	Amount.
Albany and Tryon (via North Tryon) Alberton and Kildare Alberton and Lot 6 Alberton and Railway Station Alma and Railway Station Appin Road and Bonshaw. Argyle Shore and Bonshaw. Armadale and Railway Station	C. Crawford R. Tuplin W. Hardy T. Keefe J. Mountain I. W. Smith	6&2 10 6 14 18 4 3	$\begin{bmatrix} 2\\2\\12 \end{bmatrix}$	12 months 12 do 12 do 13 do 14 do 15 do 16 do 17 do 18 do 19 do 19 do 19 do 10 do 10 do	60 00 50 00 60 00 20 80 22 48 30 00
Baldwin's Road and Perth Station Bangor and Morell Station do do Bay Fortune and Souris East Beach Point and Montague Bridge Bear River and Clear Springs Bear River and Railway Station Bedeque and Charlottetown Bedeque and Sea Cow Head Bedeque and Summerside Belfast and Charlottetown Belfast and Grafield Belfast and High Bank	W. Jardine. J. McGregor. J. McKie. A. Martin. C. McDonald. D. Costello. B. Toole. W. A. Noonan. G. M. Pierce. G. W. O'Neill. A. A Martin.	3	2 2 2 3 3 3 3 6 2 3	12 do	32 25 88 00 460 00 120 00 15 60 774 00 46 80 120 00 950 00 30 00 402 90
Belfast and High Bank Belfast and Point Prim. Bloomfield and Railway Station Bloomfield Station and Railway Station Blooming Point and Tracadie Cross. Bonshaw and Nine Mile Creek Brackley Point and Shaw's Hotel Breadalbane and New London Brown's Creek and Whim Road Cross.	F. Peters J. B. McDonald. N. H. McNevin. N. Shaw. G. W. Bell	14	3 6 2	12 do	55 00 25 00 34 72 69 00 11 70 398 00
Caledonia and Iris Caledonia and Orwell do Caledonia and Rona Cape Egmont and Fifteen Point Cape Traverse Boat House and Railway Terminus Cape Traverse and Summerside	M. Martin. A. McLeod. J. McLeod. L. D. Gallant.	5	$egin{array}{c} 2 \\ 2 \\ ext{As req} \end{array}$	12 do 3 do (to June 30, '88). 9 do from do 12 do Special trips Season 1888-89	32 00 38 50 85 86 32 00 41 60 29 67 120 70
Cape Traverse and Summerside Cape Wolfe and Lot 4 Cardigan Bridge and Corraville Cardigan Bridge and Head of Cardigan Cardigan Bridge and Lot 56 do Cardigan Bridge and Mitchell River Cardigan Bridge and Railway Sta-	M. McAuley J. J. Campbell J. McDonald H. McPhee	6	2 2 3 3 2	12 months. 12 do	62 00 52 00 41 60 71 39 127 50 40 00
tion Cardigan Road and Railway Station Cavendish and Hunter's River. Charlottetown and Railway Station. Charlottetown and Rocky Point. Charlottetown and Street Letter Boxes.	J. Smith	$2\frac{1}{2}$	$egin{array}{c} 3 \\ 3 \\ 4 \\ 2 \\ 14 \\ \end{array}$		34 68 18 72 148 00 278 18 42 64 60 75
Boxes	M. Gleeson R. Ings A. C. McLellan. G. McKay	$egin{array}{c} 2 \\ 3\frac{1}{2} \\ 3 \\ 2\frac{1}{2} \\ \end{array}$	$\frac{2}{2}$	8 do (from Aug. 1, '88) 3 do (to June 30, '88). 3 do (from Jan. 1, '89) 12 do	7 50 13 12 33 00 28 00

Detail of all payments for Mail Transportation in P.E.I., &c.—Continued.

Name of Route.	Name of . Contractor.	Distance in Miles.	No. of Trips per Week.	Period.	Amount.
Clyde Station and Railway Station. Coleman and Railway Station Commercial Road and Peters Road. Covehead Road and Grand Tracadie	A. McKinnon W. Johnston	$\begin{bmatrix} \frac{1}{16} \\ \frac{1}{16} \\ \frac{21}{2} \\ 5 \end{bmatrix}$	$\begin{bmatrix} 3 \\ 6 \\ 2 \\ 2 \end{bmatrix}$	12 months	30 00 30 00
Darlington and Kelly's Cross Darlington and New Wiltshire Darlington and Princetown Road Darlington and Railway Station Darlington and Rose Valley Darnley and Kensington De Blois Station and Railway Sta-	do	$ \begin{array}{c c} 11 \\ 1 \\ 3 \\ 8 \\ 12 \end{array} $	3 2 2 6 3 3	12 do	17 00 18 00 35 00 85 00
tion	C. Perry	$2^{\frac{3}{4}}$		12 do	. 26 00
East Baltic and Red Point. East Point and Souris East. Elliot's Mills and Railway Station. Elliotvale and Peake's Station. Elmira and South Lake. Elmsdale and Railway Station Emerald and Graham's Road Emerald and Kinkora Emerald and Railway Station.	J. Kennedy R. Elliot J. Edmonds L. McDonald J. Adams R. McDonald W. Clarke	$\begin{array}{c} \frac{1}{16} \\ 3\frac{1}{2} \\ 2 \\ \frac{1}{16} \\ 7 \end{array}$	$\begin{array}{c} 3 \\ 2 \\ 2 \end{array}$	12 do	130 00 15 60 27 00 23 92 11 00 100 00 75 00
Farmington and Head of St. Peter's Bay Farmington and Mansfield. Fifteen Point and Miscouche.	T. Boling G. Des Roches	$\begin{bmatrix} 5 \\ 3\frac{1}{2} \\ 9 \end{bmatrix}$	$\begin{bmatrix} 2\\2\\2\\2 \end{bmatrix}$	12 do	26 00
Fitzgerald Station and Railway Station. Flat River and Selkirk Road Forest Hill and Head of St. Peter's	J. Lawlor J. Callaghan	$\begin{array}{c} \frac{1}{16} \\ 6\frac{1}{2} \end{array}$	3 2	4 do (from Dec. 1, '88) 12 do	
Bay	J. Weeks T. Taylor R. B. Auld	$\begin{array}{c} 4 \\ \frac{1}{16} \\ 2\frac{1}{2} \\ \frac{1}{2} \end{array}$	6	12 do	18 00 29 00 46 95
Gasperaux and Mink River Road Georgetown and Murray Harbor		3	3	3 do (to June 30, '88)	
North Georgetown and Murray Harbor North Georgetown and Newport Georgetown and Railway Station. Georgetown and Steamer "Stanley" Glencorradale and Priest Pond. Glenfunan and Johnston's River Glen William and Murray River Gowan Brae and Souris East Greenwich and Head of St. Peter's Bay	R. Thornton P. McIntyre R. R. Jenkins do J. McPhee W. J. Brazel J. Martin	$egin{array}{c} 2rac{1}{2} \ rac{1}{2} \ 3rac{1}{2} \ 2rac{1}{4} \ \end{array}$	$egin{pmatrix} 2 \ 2 \ 2 \ 2 \ \end{bmatrix}$	3 do to do 9 do from do 12 do	68 00 115 28 24 60 23 92 6 50 33 28
Harrington and Winsloe Road Hazel Green and Peake's Station	R. Lawson H. R. Moone	$\frac{1_{2}^{1}}{6}$	$\frac{2}{2}$	12 do 12 do	32 00 57 48
Head of Hillsboro' and Mount Stewart	D. D. Coffin	41	2	12 do	46 80
Head of St. Peter's Bay and Railway Station.	J. McInnis A. McAulay	8 <u>1</u>	12	12 do	100 00
Higgin's Road and Wellington Station	D. McNeil	13	3	12 do	156 00

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.		Period.		Amount.
Hopefield and Murray River Hunter's River and North Rustico. Hunter's River and Railway Station	J. Crew	16	$\begin{array}{c} 2\\3\\12 \end{array}$	12 12 12	do	(and extra trips).	\$ cts. 40 00 146 00 68 94
Inverness and Railway Station	L. Hughes	2	2	12	do		41 00
$\begin{array}{ccc} \text{Johnston's River and Southport.} & \dots & \\ \text{do} & \text{do} & \dots & \\ \text{do} & \text{do} & \dots & \end{array}$	A. Beagan T. Corcoran W. J. Brazel	$\begin{array}{c} 11 \\ 12\frac{1}{4} \\ 12\frac{1}{4} \end{array}$	$\frac{2}{2}$	3 6 3	do do do	(to June 30, '88). (to Dec. 31, '88) from do	23 40 37 50 18 75.
Kensington and Railway Station Kildare Capes and Tignish	H. McLeod G. Glover M. Dillon J. Des Roches H. Gaudet A. Lamont	$16\frac{1}{2}$	3 3 12 2 2 2 2 1 3	$\begin{bmatrix} 3 \\ 9 \\ 12 \\ 6 \\ 6 \\ 12 \\ 5 \\ 9 \end{bmatrix}$	do do	(to June 30, '88). from do (and extra trips). (to Sept, 30, '88). from do (from Nov. 1, '88). (from July 1, '88)	48 50 123 00. 68 94 20 80. 20 80. 12 48. 10 00. 41 25
Lansdowne Hotel and Railway Station Launching and Newport. Little Tignish and Tignish Little York and Marshfield. Little York and Railway Station Little York and Union Road. Lot 4 and Mininegash Lot 4 and Railway Station. Lot 10 and Railway Station Lot 11 and Railway Station Lot 12 and Railway Station Lot 14 and Railway Station Lot 14 and Railway Station Lot 3 and Railway Station Lot 3 and Railway Station Lot 40 and Railway Station Lot 40 and Railway Station Lot 56 and Sailor's Hope	J. J. Buote R. Lawson T. H. Lawson R. Lawson J. Doyle J. M. O'Halloran H. Ritchie T. Bulger R. Hayes J. Smith M. Lawler A. H. McEwen	$\begin{array}{c} \frac{1}{16} \\ 8 \\ 4 \\ 1\frac{1}{2} \\ \frac{1}{16} \\ 22 \\ 1. \\ 5 \\ 4 \\ 1\frac{1}{2} \\ 5 \\ 5 \\ 4 \\ 1\frac{1}{2} \\ 5 \\ 1\frac{1}{2} \\ 1 \\ 1 \\ 1 \\ 1\frac{1}{2} \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ $	12 3 6 2 3 12 3 12 3	9 12 12 12 12 12 12 12 12 12 12 12 12 12	do d	do	3 75 65 00 25 00 35 00 62 40 180 00 67 60 124 80 26 00 58 00 87 64 63 96 33 28 48 48 45 00
Marie and Milburn. Marie Bridge and Morell Road. Midgell and Morell Station. Mill Cove and Railway Station. Mill River and Railway Station. Mill View and Vernon River Bridge Milton Station and North Milton. Milton Station and Railway Sta-	A. Webster	$egin{array}{c} 3rac{1}{2} \\ 1 \\ 5 \\ 2 \\ rac{1}{2} \\ 2 \\ 2 \end{array}$	3 3 2 2 6	12 3 12 12 12 12 12	do do do do do do	(from Jan. 1, '89).	20 00 3 75. 45 00. 20 00 15 00. 76 00. 26 00
Milton Station and Railway Sta- tion	do G. Desroches S. McNeill	$\begin{array}{c} \frac{1}{8} \\ \frac{1}{2} \\ 9\frac{1}{2} \\ 8\frac{1}{2} \end{array}$	$\begin{array}{c c} 12 \\ 2 \end{array}$	12 12 12 12	do do do do	(and arrears)	31 00 36 00 82 00 95 00
tion	J. McNeill W. McLeod	$\begin{bmatrix} 5\frac{1}{2} \\ 5 \end{bmatrix}$		$\frac{12}{12}$	do do		325 00 84 36
	J. Dewar	3	3	12	do		57 00
Road	J. McLean R. D. Sterns	$\frac{2\frac{1}{2}}{4\frac{1}{2}}$			do do		$\frac{26}{37} \frac{40}{00}$
Mount Herbert and Southport	M. Coffin R. Wood	$\begin{array}{c} \frac{1}{16} \\ 6\frac{1}{2} \end{array}$	12 2		do do	(from July 1, '88)	15 60 37 50
Mount Pleasant and Railway Station	H. N. Robinson.	$3\frac{1}{2}$	2	12	do		41 60
tion. Murray Harbor South and White	H. McEachern	1/4	12	12	do		20 00.
	J. Brehaut	3	2	12	do		46 00

DETAIL of all payments for Mail Transportation, in P.E.I., &c.—Concluded.

Name of Route.	Name of . Contractor.	Distance in Miles.	No. of Trips per Week.	i i		Period.	Amount
						•	\$ ets
New Haven and Riverdale Newton Cross and Orwell	D. McFayden D. Cody	$\frac{3\frac{1}{2}}{2}$	$\frac{2}{2}$	$\frac{12}{12}$	$\frac{\text{non}}{\text{do}}$	ths	36 00 26 00
New Zealand and Railway Station.	J. Cantwell	1	3	12	do		15 60
Northam and Railway Station North Lake and Souris East North River and South Wiltshire	W. McLaren	$24^{\frac{1}{16}}$		$\frac{12}{12}$	do		20 00 213 00
North River and South Wiltshire	T. Yeo	4	3	12	do		50 00
O'Leary Station and Railway Sta-	T 33	,			,		'a s
tionO'Leary Station and West Cape	R. Ellis	16 9	$\frac{6}{2}$	$\frac{12}{3}$	do	(to June 30, '88).	15 65 22 00
do do Orwell and Orwell Cove	W. Ellis	o o	2	9	do	from do	62 61
		2	3	12	do	• • • • • • • • • • • • • • • • • • • •	49 00
Palmer Road and Railway Station. Palmer Road and Waterford	W. Kinch	3 4	$\frac{2}{2}$	$\frac{12}{12}$	do do		$\frac{35}{20} \frac{00}{00}$
Peake's Station and Railway Sta-							
tion Pinsville and Railway Station	J. F. McDonald A. Wedge	$\frac{1}{16}$	3	$\frac{12}{12}$	do		15 60 26 00
Pisquid and Railway Station	A McDonald	$1\frac{1}{2}$	$\frac{2}{2}$	12	do		33 28
Pisquid and Webster's Corners	P. McNally	$\frac{6}{3}$	$\frac{3}{2}$	$\frac{12}{12}$	do		$\frac{52}{46} \frac{00}{00}$
Pisquid and Webster's Corners Pisquid Road and Vernon River Port Hill and Railway Station	L. Yeo	4	12	12	do	`	187 80
St. Andrews and Railway Station	J. McDonald	$2^{rac{1}{8}}_{2}$	3	12	do		25 00
St. Eleanors and Summerside	H. Mills	$2^{rac{7}{2}}$	$\frac{6}{2}$	$\frac{12}{12}$	do		74 00
Seatchfort and Railway Station	T. Bernard	$7\frac{1}{4}$	$\frac{2}{2}$	$\frac{12}{12}$	do		12 48 50 00
Sea Cow Pond and Tignish	P. Aylward	16	$\frac{2}{2}$	12	do		58 00
Souris East and Railway Station Suffolk Station and Railway Sta-	L. Cheverie	$\frac{1}{2}$	12	12	do	(and extra trips).	71 40
tion	J. A. Ferguson.	$\frac{1}{16}$. 2	12	do		17 68
Summerside and Street Letter		$\frac{1}{2}$	Asreq		do		161 44
Boxes	D. Fraser.	$\frac{4\frac{1}{2}}{4\frac{1}{2}}$	14	8	do	(from Jan. 1, '89) (to Sept. 30, '88).	6 25 27 00
do do	E. Fraser	$4\frac{1}{2}$	3	6	do	from do	27 00
Ten Mile House and Railway Sta-							
tion	J. Fitzpatrick	$1\frac{1}{4}$	$\frac{2}{12}$	$\frac{12}{12}$	do		20 00 40 00
Tracadie Cross and Railway Sta-		8	14		uo		40 00
tion Travellers' Rest and Railway Sta-	A. Johnston	$\frac{1}{2}$	3	12	do		28 08
tion	T. Townsend	1	3	12	do		39 00
Wellington and Wellington Station. Wellington Station and Railway	J. A. Arsenault.	$1\frac{1}{2}$	2	12	do		21 48
Station	F. J. Arsenault.	$\frac{1}{16}$	12	12	do		20 00
Western Road and Railway Sta- tion	P. Reid	$1\frac{1}{2}$	2	12	do		25 00
West Point and Railway Station	P. McPhee	13	2	12	do		104 00
West St. Peters and Railway Sta- tion		$2\frac{1}{2}$	2	12	do		36 28
Wilmot Valley and Railway Sta-	W. B. Bowness,	$3\frac{1}{2}$	$_2$	12	do		53 23
Winsloe Station and Railway Sta-					*		
tion	J. Burrows	16	3	12	do		15 00
						Total	\$12,802 52

WILLIAM WHITE,

Deputy Postmaster-General.

W. H. SMITHSON, Accountant. Detail of all payments for Mail Transportation in Prince Edward Island, made within the year ended 30th June, 1889.

CONVEYANCE OF MAILS BY STEAMBOATS AND SAILING VESSELS.

Name of Route.	Name of Contractor.	Distance in Miles.	No. of Trips per Week.	Period.	Amount.
Charlottetown and Pictou, N.S., &c.	P. E. Island S. N. Co	60 & 45	4&6	(In addition to subsidy)	\$ ets. 1,742 00

N.B.—For Special Mail Subsidies and Steamship Subventions, see page 9.

WILLIAM WHITE,

W. H. SMITHSON,

Accountant.

VILLIAM WHITE,

Deputy Postmaster-General.

Detail of all payments for Mail Transportation in Prince Edward Island, made within the year ended 30th June, 1889.

CONVEYANCE OF MAILS BY RAILWAYS.

Name of Railway.	Distance in Miles.	No. of Trips per Week.	Period.	Amount.
Prince Edward Island Railway	2013	With varying frequency over different sections of the line		\$ ets. 21,337 55 \$21,337 55

WILLIAM WHITE,

W. H. SMITHSON,

Accountant.

Deputy Postmaster-General.

DETAIL of all payments for making and repairing Mail Bags, Mail Locks, &c., in Prince Edward Island, made within the year ended 30th June, 1889.

Tradesmen's Names.	Particulars of Disbursements.	Amount.
S. & H. Borbridge R. S. Montgomery Pritchard & Andrews. E. Chanteloup.	Mail bags, labels and repairs for Post Office Department Mail bags, labels and rivet seals for do Mail bag labels for do Mail lock keys for do Total.	\$ cts. 8 78 664 16 1 88 1 00 \$675 82

W. H. SMITHSON,
Accountant.

WILLIAM WHITE,

Deputy Postmaster-General.

PROVINCE OF ONTARIO.

DETAIL of all payments made for Salaries, &c., in Ontario; showing, in each case, the name of the person, the service or duty performed, and the amount paid within the Year ended 30th June, 1889.

Grand Total.	% 29 20 20 20 20 20 20 20 20 20 20 20 20 20
Total Casses.	
Night Duty and Mileage.	3, cts. 4,062 50 1,400 00 500 00 300 00 3,600 00 56
Salary.	\$ cts. 2,800 00 1,262 50 1,400 00 2,200 00 1,400 00 1,200 00 1,300 00 680 00 580 00
Service.	CHIEF INSPECTOR'S OFFICE. Sects. Chief Inspector. Assistant Inspector. Temporary Clerk, from 1st February, 1889. Post Office. Total, Chief Inspector's Office. BARRIE DIVISION. Post Office Inspector. BARRIE DIVISION. Post Office Inspector. Total, Chief Inspector's Office. BARRIE DIVISION. Total, Chief Inspector. Total, Chief Inspector's Office. BARRIE DIVISION. 2,200 00 1,200 00 Cass Clerk Barrie Division. Total, Barrie Division.
Name.	J. Dewe. W. F. Bennett. Assistant Inspector. W. F. Bennett. A. N. Payne. J. Henderson. J. Henderson. J. Ward. J. Ward. J. Ward. J. Harris. Messenger. Messenger.

44.00						18,112 89				7,507 50
	1,475 63	3,150 80	නු නැ නැ නැ		4,307 30		00 000 6	9,000	400 60	
	3 86	158 95 154 64 158 21	208 33 187 02 169 09 163 27 153 27 209 93 209 93 117 21 117 21 183 50	163 81 185 80 166 26 171 28 187 93 161 62 102 20	3,156 47					
	1,471 77	959 00 880 00 840 00	8800 00 7753 33 7720 00 720 00 720 00 68 66	560 00 520 00 520 00 520 00 499 00 480 00 230 00	14,956 42		2,400 00 1,400 00	1,200 00 1,195 00 912 50	400 00	
RAILWAY MAIL SERVICE.	A. McCarthy Chief Railway Mail Clerk, suspended from 4th to 10th July, 1888	P. Hynes. W. Stokes. J. H. Bennett. One promoted from 2nd Class, 1st October, 1888.	M. E. Kelly 2nd do J. O'Connor. do do J. J. Skelly do do T. Martin do do T. Dunn do do J. Legste do do T. J. Atkins do promoted from 3rd Class, 1st December, 1888	J. D. Cunningham 3rd do do LUffy. Leadley. do do do do do do do do W. J. Mackenzie. do from 1st December, '88 (transferred from Toronto Division)		Total, Barric Railway Mail Service KINGSTON DIVISION	G. E. Griffin Post Office Inspector. A. Jones. Assistant Inspector.	J. E. Hopkirk. 2nd Class Clerk. P. H. Macarow do J. C. Strange. do	H. F. Wilmot.	Total, Kingston Inspector's Office

DETAIL of all payments for Salaries, &c., in Ontario, made within the Year ended 30th June, 1889—Continued.

	Grand Total.	ets.						5,497 62							10,152 50
i	Total of Classes.	ets.	G S S	20 760	1,470 91		3,174 02				4,000 00	L, 400 00	2,150 00	382 50	
	Night Duty and Mileage.	ets.	176 70	130 61 163 30	115 02 143 98	131 95 145 56 131 24	1,138 36						,		
	Salary.	ets.	675 99	630 00 547 00	560 00 520 00	432 93 513 34 480 00	4,359 26			2,400 00 1,600 00	1,400 00	1,100 00	800 00 800 00 620 00	382 50	
	Service.		KINGSTON DIVISION—RAILWAY MAIL SERVICE. 1st Class Railway Mail Clerk, promoted from 2nd Class, 10th April, 1889	2nd do promoted from 3rd Class, 10th April, 1889	- 3rd do do do	은 은은		Total, Kingston Railway Mail Service	LONDON DIVISION.	Post Office Inspector. Assistant Inspector.		2nd do do	3rd do do do	Messenger.	Total, London Inspector's Office
	Name,		H. F. Ketcheson	J. A. Renton D. J. Walker	J. Hoyland.	J. R. Sayers				R. W. Barker.	A. Thomson1st Class	W. BlairF. W. Matthews	R. G. Mercer. G. Hampton.	W. G. McKenna	

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	1,509 72	11,303 28	15,261 61	8 313 98
	9 72	183 173 173 113 105 113 107 113 107 107 107 107 107 107 107 107 107 107	282582525252525252525252525252525252525	
	1,500 00	00 00 00 00 00 00 00 00 00 00 00 00 00	8800 8800	520 00
RAILWAY MAIL SERVICE.		1st Class Railway Mail Clerk do d	on leave without salary from 25th January to 25th April, 1889 (resigned). suspended from 29th January to 5th February, 1889.	
٠	Chief Railway Mail Clerk	lst Class Railway do	වස් විස් Class Railway විස් ප්ර විස් ප්ර ව ස්ර ව සේර ව සෙ ත ව සෙ සෙ ත ව සෙ සෙ ත ව සෙ සෙ ත ව සෙ ත ව සි සෙ ත ව සි සෙ ත ව සෙ ත ව සි සෙ ත ව ස ත ව සි ත ව සි ත ව සි ත ව ස ත ව සි ත ව සි ත ව සෙ ත ව ස ත	op
	A. G. McWhinney	P. Purdon. J. Wynn. B. D. D. Rorison. W. Mathews. J. Wright. H. Cousins. T. J. Essex. W. Mitchell. W. Edgar. T. J. O'Meara.	R. P. Wright 2nd do	W. W. McVicar

DETAIL of all payments for Salaries, &c., in Ontario, made within the Year ended 30th June, 1889.—Continued.

Grand Total.	ets.			37,508 87								66 826'6
Total of Classes.	e cts.	560 28	260 20			1 6 6 7 1 1	0,101.00	1,162 50	1,100 01	0191110	435 00	
Night Duty and Mileage.	cts.	73 22 1 90		6,519 22								
Salary.	cts.	430 97 54 19	260 00	30,989 65		2,400 00 1,237 50 1,500 00	1,162 50	458 34 725 00	177 75 760 00 440 00 470 00	212 90	435 00	
Service.	LONDON DIVISION—RAILWAY MAIL SERFICE—Concluded.	Temporary Railway Mail Clerk, from 8th August, 1888from 21st May, 1889	Mail Transfer Agent	Total, London Railway Mail Service	OTTAWA DIVISION.	Post Office Inspector . Assistant Inspector promoted from 1st Class, 1st January, 1889.	1st Class Clerk, promoted from 2nd Class, 1st October, 1888	2nd do to 30th November (transferred to Stratford Division)	ard do to 30th September, 1888 (transferred to Ottawa Post Office; also suspended from 7th to 15th September, 1888).	Temporary Clerk, from 20th December 1888	Messenger	Total, Ottawa Inspector's Office
Name.		G. W. Routledge	R. Dagg	126		T. P. French G. Marsan C. P. LeSueur	J. F. O'Connor	D. Moloney	W. M. Brophy	H. M. Short	C. Duggan	

	62	21		12		31 46	34,152 89
	1,504 79	9,110		13,005 12		9,914 31	
	4 79	359 64 520 03 518 12 392 92 415 93 398 91	256 08 283 24 283 24 255 24 250 94 250 91 250 91 25	399 68 414 30 410 42	25.25 25 25.25 25 25 25 25 25 25 25 25 25 25 25 25 2	178 46	
	1,500 00	960 960 960 960 960 960 960 960 960 960	800 00 720 00 640 00 686 66 686 66		520 00 520 00 520 00 520 00 520 00 520 00 520 00 620 00 60 60 00 60	440 00	
RAILWAY MAIL SERVICE.	J. D. Thomson	1st Class Railway Mail Clerk do do do do do do do do do d	and do		ard do do do do do suspended from 28rd June to 6th September, 1888 (transferred to Toronto Division) (less fine). do do suspended from 22nd to 25th January, 1889 (less fine) do do do do do do do	ao Railway Mail Cle	Total, Ottawa Railway Mail Service
	J. D. Thomson	E. Gordon. W. F. Burnham G. T. Gorrell R. Peden. J. A. Chevrier D. J. Skelly F. H. Smith	J. B. Z. Legendre A. Leclair. P. A. Maingy. J. B. Gillessie C. Plumb H. Macdonald. C. W. Macdonald. N. F. Elliott. J. H. P. Brown	S. Houston	J. Griffith. J. Eagleson. J. J. Novens. J. J. Novens. J. J. Lally. A. H. J. Coburn. J. E. Hetherington. T. J. M. Skelly. J. Corcoran. R. McLaren. E. H. Hayes. G. Catellier. J. G. Armstrong.	H. J. Kenny Temporary	

DETAIL of all payments for Salaries, &c., in Ontario, made within the Year ended 30th June, 1889.—Continued.

Grand Total.	4,791 45
Total of Classes.	\$ cts. 2,900 000 126 45 1,390 00 375 00 3,757 48 5,606 06 60 28
Night Duty and Mileage.	\$ cts. 1 00 1 80 87 178 97 158 94 202 70 160 83 154 02 179 23 164 04 207 98 162 95 6 09 6 09
Salary.	\$ cts. 2,200 00 700 00 126 45 126 45 883 55 880 00 720 00 720 00 720 00 720 00 560 00 580 00 581 92 583 82 583 82 580 00 880 00 720 00 720 00 880 00 720 00 720 00 881 92 883 82 880 00 720 00 880 00 720 00 881 92 883 82 883 82 884 90 884 90 885 90 886 90
Service,	Control of the cont
Name.	H. G. Hopkirk D. Moloney J. Yorick D. A. Bruce C. B. Lawrence do W. S. Watson A. B. Orr A. Jones J. Yorick A. Jones J. McOleyne E. J. Freel W. J. Ramsay W. Kichardson A. J. Cheyne H. F. Dumming R. Johnston J. McD. McNeill Temporary

						11,340 00			
						11,			
	90	4,200 00	1,400 00	4,500 00	560 00 580 00			E	
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								17 54	28 20 20 20 20 20 20 20 20 20 20 20 20 20
	2,600 00 1,600 00	1,400 00	1,200 00 1,200 00 1,200 00 1,000 00	260 00	580 00		•	1,500 00	880 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
TORONTO DIVISION.	M. Sweetnam. G. A. Burnham. Post Office Inspector.	W. E. Griffith 1st Class Clerk	G. T. B. Gurnett. 2nd do J. Henry. do W. Crocker do H. W. Smallpiece. do	G. B. Sweetnam 3rd do	J. McKillop Messenger	Total, Toronto Inspector's Office	RAILWAY MAIL SERVICE.	C. J. H. Wiustanley Chief Railway Mail Clerk	Lange of the complete of the

DETAIL of all payments for Salaries, &c., in Ontario, made within the Year ended 30th June, 1889—Continued.

<u> </u>	
Grand Total.	\$ cts.
Total of Classes.	\$ cts. 18,300 94 7,115 38 2,349 78
Night Duty and Mileage.	* cts. 382 333 332 333 332 333 332 333 335 333 335 333 335 335
Salary.	\$ cts. 80 00 720 00 720 00 720 00 560 00 55
. Service.	E. Sewell 2nd Class Railway Mail Clerk do
Name.	L. Sewell. J. T. O'Loane J. Pringle. J. Pringle. J. Pringle. R. C. Clarke. W. J. Little. W. Smellie. J. T. Mollard. M. W. Sloan. H. P. Thompson. H. M. Skelly. M. Jawless. M. Lawless. M. Skelles. M. Sallivan. A. A. Allen. Ten

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Grand Total.	\$ cts.					0	0,910 00						
Total of Classes.	ets.	9.500 00	00000		2,710 00	400 00		1,400 00					
Salary.	ets.	1,400 00	00 006	560 00 550 00 550 00 540 00 500 00	400 00			2,400 00 1,800 00	1,400 00	1,200 00 1,075 00 1,075 00 975 00	800 00 800 00 800 00 800 00 133 34		
Service.	Brought forward BELLEVILLE POST OFFICE.	J. H. Meacham. Assistant Postmaster. T. Duncan.	2nd Class Clerk	3rd do	Tenporary Clerk	Total Relleville Doct Office		Postmaster. Assistant Postmaster.	H. A. Eager 1st Class Clerk	2nd do do do do	3rd do do do do do to 31st August, 1888 (deceased).		
Name.		J. H. Meacham	A. Gillen 2nd Class	S. W. Glazier. W. B. Walker. I. M. Newberry L. W. J. Embury.	E. Doyle Temporary Clerk			H. M. Case	H. A. Eager	T. Burns. G. H. Bull G. Ross. A. C. Crisp.	J. S. Mathews. 3rd E. H. Dunnett. B. F. Barber. W. R. Ecclestone. H. Dinnse.		

Detail of all payments for Salaries, &c., in Ontario, made within the Year ended 30th June, 1889—Continued.

Grand Total.	% %
Total of Classes.	% cts.
Salary.	\$\\\ \text{ct}\$\$\\\ \text{ct}\$\$\\ \text{ct}\$\$\\\ \t
Service,	F. T. O'Donnell
Name.	P. J. O'Donnell R. Fitzgerald W. F. Fynn D. D. Campbell H. F. Hill J. A. Webber H. E. J. Filgiano C. Judd O. Beatty J. G. McCulloch R. S. Miller W. P. McCawley R. J. Harron R. S. Miller W. P. McCawley S. Smith J. H. C. Dempsey M. L. Cusack W. C. Richter A. M. Hamilton J. Murphy J. H. Fearnside W. G. Richter A. M. Hamilton J. Gardner R. Straaton W. G. Flooks W. Angus W. Remnie.

				42,074 12					
0 5 9 9	19,850 88	210 00	260 00	1 .		9 176	3,176 00	1,399 00 975 00	90 C/S
66.88	210 00	600 00 412 50	260 00			2,000 00 1,176 66	1,399 00	875 00	7440 00 8800 00 550 00 530 00 420 00 400 00
do to 31st March, 1889; suspended from 16th to 31st March, 1889 (dismissed) do d	Temporary Letter Carrier to 31st January, 1889 (deceased)	Messenger	Postmaster, James Street	Total, Hamilton Post Office	KINGSTON POST OFFICE.	Postmaster. Assistant Postmaster, to 23rd June, 1889; promoted from 2nd Class, 1st October, 1888 (dismissed)	1st Class Clerk (less fine)	. 2nd do promoted from 3rd Class, 1st October, 1888	do d
D. C. Dowrie. W. Dawe. W. H. James. E. Frank. J. W. North. G. Springate M. Dawson. E. Sevier. W. A. Mundy. W. Strongman. W. Lawrence. J. Charters. J. Philips. G. P. Hanlon. J. R. Thomas. R. M. McDonald. W. Num. A. Thomas. W. McFarland. F. Hodd.	A. Griffin	D. Walsh	A. Vincent			J. Shannon. R. T. Burns	J. Kelly	W. S. Smyth	J. McBride J. P. Pense F. Macdonald R. J. D'Arcy T. Moore W. J. O'Reily A. J. Chamberlain W. Wells

DETAIL of all payments for Salaries, &c., in Ontario, made within the Year ended 30th June, 1889—Continued.

1	1	zř.				63				
	Grand Total.	* cts.				15,610 62				
	Total of Classes.	• cts	954 00	3,410 00	96 069	on ele		3.800 00	3 487 50	
	Salary.	\$ cts.	554 00 600 00 575 00 485 00 465 00	442 50 427 50 420 00 345 48	345 48		00 006 6	1,600 00	1,200 00 1,200 00 1,087 50	800 00 800 00 800 00 720 00 640 00 719 00
	Service,	KINGSTON POST OFFICE—Concluded. Temporary Clerk	do d	do do do Temporary Letter Carrier, from 16th July. 1888	do do	Total, Kingston Post Office	LONDON POST OFFICE.	K. J. C. Dawson	J. Hunter. 2nd Class Clerk. do do do do do	3rd do
	Name.	G. G. Meacher	A. T. Deacon A. H. Miller J. Collins R. Lewers P. J. Howland	R. Gilmour R. Kearns W. Neill 78, R. Elliott	T. E. Genge do			K. J. C. Dawson J. D. Sherman	J. Hunter R. F. Matthews C. Hevey	C. J. N. Shanly. J. Ward A. E. Ashton N. McNeil L. Lawless. F. C. Wheeler W. Nichols.

		480 88 88 88 88 88 88 88 88 88 88 88 88 8	888888888	13,293 31	
				100101	
	: : : : : :		84 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4		2,400 00 1,900 00
H. Skinner do (suspended from 1st November, 1888, to 13th March, 1889) O'Meara do (suspended from 1st November, 1888, to 13th March, 1889) P. Muray do do J. Devinney do do E. Elliott do do A. Macdonald Superintendent Letter Carrier	Super Lette		the second section of the second	rette	J. A. Gouin Postmaster OTTAWA POST OFFICE.

DETAIL of all payments for Salaries, &c., in Ontario, made within the Year ended 30th June, 1889—Continued.

Grand Total.	sign of the state
Total of Classes.	% cts.
Salary.	\$\epsilon\$ cts. 1,400 00 1,200 00 1,200 00 1,200 00 1,200 00 1,050 00
Service.	1st Class Clerk 2nd do do to 30th September, 1888 (transferred to Ottawa Division). 3rd do to 11th February, 1889 (transferred to Ottawa Division). 3rd do to 11th February, 1889 (transferred to Ottawa Division). 3rd do to 11th February, 1889 (transferred to Ottawa Division). 4 do do to 31st July, 1888, including arrears (transferred to Winnipeg Post Office) 4 do to 31st December (resigned) 5 do do to 31st December (resigned) 6 do
Name.	E. B. Bates. E. J. O'Connor. C. Shaw. W. H. Pennock M. J. Whitty. W. O. Mercer. A. A. Smith B. L. Andrian H. Poole E. L. Chevrier. G. R. MacQueen L. Garrett A. York E. L. Chevrier. G. R. MacQueen L. Garrett A. H. Gallup L. E. Noëll. E. H. Matthewman F. E. Matthewman G. Garrett A. H. Gallup C. Garrett A. H. Gallup C. Garrett A. H. Gallup C. Garrett G. WacVills A. F. A. Chabot M. Patrick W. Patrick V. Patrick V. Patrick W. A. Bangs. M. A. Goughilin. M. A. Bangs. M. A. Bangs.
	Service, Total of Classes.

13 488 60	10, 400		11,281 89
393 38	28 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	28	
from 1st October, 1888 (transferred from Ottawa Division; suspended from 4th to 12th December, 1888; also from 1st March to 30th April, 1889)	Clerk. to 31st July, 1388 (resigned) (less fine) (less fine) from 9th July, 1888 from 19th October, 1888 (less fines) from 19th October, 1888 (less fines) from 19th October, 1888 (less fines)	Carry Cover	If the fall belong we want contact; two
ор	Temporary do d	Letter Carter Ca	OD
W. M. Brophy	E. Smith. Landriau E. Traversy. Webber. R. Clewes. H. Powell P. Chilton P. Chilton T. Dubanel Fraulkner Fraulkner H. Barbett S. Warwicker Archambault. C. Fraser Cobeil P. Dontigny M. Webber	A. Cotelhand M. L. Blanchet, M. St. Denis. L. S. Warwicker L. Brown A. Dolan. P. Robert, T. Coddie W. Lamb M. J. Egan J. N. Lamb M. J. Egan J. T. Bedard, M. Fagan N. Marion H. H. Duggan H. H. Duggan H. W. Pair. W. H. Murphy F. X. Giroux J. C. Bell J. C. Bell J. J. Fair. C. Cooch H. Concoleration H. W. Poorley H. Chamberhain H. C. Cooch H. Chamberhain H. W. Poorley H. C. Cooch H. C. Cooch H. W. Poorley H. C. Cooch H. W. Poorley H. C. Chamberhain H. W. Poorley	F. W. Koeske.

DETAIL of all payments for Salaries, &c., in Ontario, made within the Year ended 30th June, 1889—Continued.

Grand Total.	& cts.					46,997 76				
Total of Classes.	s cts.	. 6	1,140 20	1,200 00	153 87			900	00 000	000000
Salary.	\$ cts.	360 00 360 00 18 38 330 00 212 00 187 74 122 14 78 00 78 00	00 009	600 00	153 87			3,000 00 2,000 00	1,400 00 1,200 00 1,500 00 1,200 00	1,200 00 1,200 00 1,200 00
Serviće.	OTTAWA POST OFFICE—Continued.	porary Letter Carrier. do from 13th to 31st July, 1888 (services dispensed with). do from 1st August, 1888 do from 29th November, 1888 do from 24th December, 1888 do from 27th February, 1889 do from 13th April, 1889.	Letter Collector	Messenger do	Temporary Messenger, from 28th January, 1889	Total, Ottawa Post Office	TORONTO POST OFFICE.	Postmaster Assistant Postmaster	Class Clerk do do do do do	2nd Class Clerk do do
Name.		F. A. Schultz. O. Legault. E. W. Guines. J. Hayes. C. Chaput. W. J. Usher. D. Charlebois. J. McCahlum. H. Ketcheman.	8 W. Goodwin	H. Duggan. T. A. Pirrie	R. McElligott Te			T. C. Patteson	J. H. Davis. A. Cooper. J. Moerschfelder. A. G. Thompson. R. W. Riddell	A. Harstone H. F. Falkiner W. Loudon

1,200 00 1,200 00 1,200 00 1,105 48 1,200 00 1,100 00 1,000 00 1,000 00	24				
(suspended from 12th May, 1889).	(suspended from 7th to 20th Pebruary, 1889). to 13th May, 1889 (transferred to Post Office Department) (less fine)				
	24				
B. M. Armstrong J. Monaginan B. Langley B. Bascom R. E. Chadd A. A. Beatty R. Hassard A. T. Middleton W. Macpherson	J. Gorman. A. Curran W. H. Douglas. J. Dunbar H. S. Allen J. Callaghan J. H. Scott H. Boulter. W. Bonnick R. A Aymong G. A. Thomas M. E. Hynes M. E. Hynes J. Aikins J. Aikins A. E. Beatty W. E. Lemen J. Grandfield J. Kirkpatrick M. Macdonald M. Macdonald M. Macdonald M. A. Pridham W. E. Jemen J. Grandfield J. Kirkpatrick M. Macdonald M. Macdonald M. A. Pridham W. Riddle A. McIntyre J. Kurkpatrick M. Macdonald M. A. Pridham W. Riddle A. McIntyre J. Kurkpatrick J. Rubham W. Riddle A. McIntyre J. Kurkpatrick J. Rubham W. Riddle A. McIntyre J. Kurkpatrick J. Rubham J. S. Boddy C. E. Smith R. F. Durham H. A. Dwyer J. R. Briggs W. Sparks E. Spencer W. A. Hynes T. Gill J. A. Whiteside J. Stoddart J. L. Wabkins				

Detail of all payments for Salaries, &c., in Ontario, made within the Year ended 30th June, 1889—Continued.

-	1		
	Grand Total.	& cts.	
	Total of Classes,	ets.	35,516 39
	Salary.	ets.	2500 00 00 00 00 00 00 00 00 00 00 00 00
	Service.	TORONTO POST OFFICE—Continued.	Srd Class Clerk do do do do do do do do do d
	Name.		J. Huggard. 3rd Class W. G. Milligan. do W. G. Milligan. do S. Herst. do E. Westman. do G. Pollock. do G. Booth. do D. Lockyer. do R. Sparks. do W. H. Canniff. do W. J. Santer. do C. W. James. do V. W. James. do G. W. James. do G. T. Louring. do J. Galbraith. do G. T. Louring. do A. McGee. do J. J. Larkin. do J. J.

H. Weatherbee. do do Williams do do		00 009 00 009
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C. Jackson. do		
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H. Watson. do Kirk do		
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	to 28th February, 1889 (resigned).	
Weir. Weir. do		
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McMordie do		

Grand Total.	& cts.		
Total of Classes.	ets.	68. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6	000,000
Salary.	& cts.	2629 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	360 00 360 00 360 00
Service.	TORONTO POST OFFICE—Concluded.	Carrier do do do do do do do do do d	ary Letter Carrier do do do from 74th Dozenton 1900
Name.		W. J. Mankey Letter Carrier of the control of the contro	F. S. RutlandTemporary E. E. KnoxJ. Handor

							109,107 19
<u> </u>	8 8			3 8	-		
69 98 88	1,900 00	236	197	360 00		2,023	
8888888888888111	8888	00 %	8 8	8	888	0034800	
888888888888888888888888888888888888888	580 480 480 360	236 00	290 00	360 00	360	250 00 275 48 258 33 290 00	
do from 23rd March, 1889; also from 17th December, 1889, to 16th January, 1889; and from 20th February to 19th March, 1889 do do do do do do do d	Porter do do from,	Temporary Messenger, from 17th January, 1889; also Acting Temporary Clerk, from 17th December,	Care	Temporary Caretaker, from, and Temporary Letter Carrier to 31st October, 1888	Postmaster—Bathurst S	do Dundas do Bornes do Feter do from 8th May, 1888. do Queen do East. do Spadina Avenue	Total, Toronto Post Office
W. Burns. W. F. Stevens. T. C. Sewell. T. Quinn. Y. H. Smith J. Shea. H. E. Richardson. E. Middleton. E. Stewart. J. S. Clarke. J. G. Lackey J. Levis. J. G. Lackey J. Levis. J. E. Jeffery J. E. Jeffery J. A. Bailey F. Lane. R. H. Gordon, H. Norton. G. Hubbard	R. Kirk J. Parrett J.R. H. J. Hutty.	J. Wilson.	J. W. Reynolds	C. R. Bickley	T. Johnston. E. Newton.	A. Henrey J. L. Bird W. Price. J. Reading	

A. Wigle Postmaster F. X. Meloche Postmaster F. X. Meloche Assistant Postmaster W. A. Conway 2nd Class Clerk E. O'Connor. 3rd do M. Wagner do A. B. Wagner do A. B. Wagner do A. B. Wagner do A. B. W. Nesbitt, do do do B. J. McHugh do D. J. McHugh do A. P. Eanle do D. J. F. Askin Dotter W. Rockford Porter J. Jeffers Messenger	\$ cts. 1,400 00 1,100 00 1,100 00 650 00	\$ cts.	æ
Postmaster Assistant Postmaster. 2nd Class Clerk. 3rd do			
2nd Class Clerk 3rd do	1,050 800 670 669 640 640 650 650 650 650 650 650 650 650 650	1	
3rd do	800 640 640 640 660 660 660 660 660	1	
Temporary Clerk (less fine). Porter. Messenger.	400 00		
Porter. Messenger	399 00	0, 100 11	
Messenger	480 00	1	
	480 00	480 00	
Total, Windsor Post Office			11,094 11
Balance of Salaries remitted by cheque to Postmasters other than above; being the excess of their salaries over the amount of revenue collected by them to 30th June, 1888	f their		5,054 11
LESS—Proportion of Salaries transferred to Quebec—Of Ottawa Inspector, Staff and Railway Mail Clerks.			472,751 44 3,983 53
Total			\$468,767 91

PROVINCE OF QUEBEC.

the service	Grand Total.	cts.					- <u>-</u>	10,361 66			
person,	Total of Classes.	₩	y 6	9,200 00	6,200 00	1,32, 20	306 46			1 610 84	o orect
me of the ne, 1889.	Night Duty and Mileage.	ets.								10 57	443 19 102 02 319 16 370 48 325 74 147 28 317 44
se, the na	Salary.	s cts.	2,600 00 1,400 00 1,200 00	1,200 00 1,100 00 900 00	793 55 431 65	177 ±2 129 04	430 00			1,500 00	00 00 00 00 00 00 00 00 00 00 00 00 00
Detail of all payments made for Salaries, &c., in Quebec; showing, in each case, the name of the person, the service or duty performed, and the amount paid within the Year ended 30th June, 1889.	Service.	MONTREAL DIVISION.	Post Office Inspector Assistant Inspector d	F. J. Logie. 2nd Class Clerk. J. A. Madore. do do do do	3rd do (less fine) do (including arrears; less fine).	Temporary Clen	Messenger	Total, Montreal Inspector's Office	RAILWAY MAIL SERVICE.	. Chief Railway Mail Clerk	1st Class Railway Mail Clerk. do do do do do do
DETAIL of all pa	Name.		E. F. King. D. Nelligan. J. E. Gervais.	F. J. Logie. J. A. Madore.	M. Kearney3rd	O. C. Bass	H. Lacken Messenger			F. Briegel.	A. Wahmsley. G. Jones. A. Demis A. Menzies. A. Lachapelle. N. McLellan. A. Somerville. I. D. Ardanson.

DETAIL of all payments for Salaries, &c., in Quebec, made within the Year ended 30th June, 1889.—Continued.

Grand Total.	± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ± ±
Total of Classes.	\$ cts.
Night Duty and Mileage.	\$\\ \frac{\pi}{28} \\ \p
Salary.	** Cts.
Service.	MONTREAL DIVISION—RAILWAY MAIL SERVICE—Concluded. 1st Class Ruilway Mail Clerk. do do (including arrears) do do (suspended from 20th to 26th August, 1888) do do (including arrears) do do (including arrears) do do (iess fine). Division do
Name.	C. Beatty H. E. Channell. J. Murphy. E. Lefebvre. H. D. Filion C. Hayden C. Beaudoin E. Dorion E. Dorion E. Dorion H. G. Goodfellow W. H. G'Regan L. C. Crevier. A. Armstrong G. R. Dewar L. C. Crevier. J. P. Hall D. T. Frost. J. E. McKenzie. J. W. Genest. J. B. Guèvremont. E. L. Smith W. N. Peters J. Rock A. J. McRobie. E. H. Brooks A. H. Evans. W. E. C. Jones J. Ford. W. M. Peters J. Kord W. M. Ferench. J. L. French.

														**	
					46,784 77						8,720 00				
	3,127 75	168 47	00 000 h	co cle				3,400 00	7,800 00	360 00			000	00 00c T	6,375 64
178 80 136 68 93 20	26 54			10,071 20								Parada Nacconi		185 30 252 00 364 02 393 48 380 84	161 78
480 00 510 00 336 66	141 93	550 00	400 00 115 05	36,713 57			2,000 00 1,400 00	1,200 00 1,200 00 400 00	800 00 530 00 430 00 400 00	360 00			1,500 00	00 096 00 096 00 096 00 096	800 00
do do to 28th February, 1889 (transferred to Three Rivers Division)	. Temporary Railway Mail Clerk, from 15th March, 1889	Mail Transfer Agent	. Temporary Mail Transfer Agent		Total, Montreal Raliway Mail Service	QUEBEC DIVISION.	A. Bolduc Post Office Inspector J. L. Anctil Assistant Inspector	2nd Class Clerk. do to 31st December, 1888 (transferred to Railway Mail Service).	Strd do do do do do do do	. Temporary Messenger	Total, Quebec Inspector's Office.	RAILWAY MAIL SERVICE.	Acting Chief Railway Mall Clerk	1st Class Railway Mail Clerk. do do do do do	do to 31st March, 1889 (transferred to Quebec Post Office; also suspended from 26th February to 26th March, 89)
E. W. Hay J. M. Hall S. Gervais	G. W. Lawrence	C. Chase	L. O. Gariepy S. Galbraith.				A. BolducJ. I. Anctil	O. Fréchette C. Vohl 1. F. Carrier	L. J. B. Caouette L. J. H. Larue L. E. Simard J. Bouffard.	A. Raymond			E. Blondeau	J. Deslauriers. G. Lapointe O. Talbot. T. Gaudry. H. J. Kimlin	D. Blondeau

DETAIL of all payments for Salaries, &c., in Quebec, made within the Year ended 30th June, 1889—Continued.

Grand Total.	₹ \$40	27,105 00
Total of Classes.	S cts. 14,944 27 3,625 29	00 00 00 00 00 00 00 00 00 00 00 00 00
Night Duty and Mileage.	\$ cts. 140 33 310 16 314 09 3	5,977 38
Salary.	\$8000000000000000000000000000000000000	21,127 62
Service.	O. Pagean QUEBEC DIVISION—RAILWAY MAIL SERVICE—Concluded. G. Bourget do G. Bourget do E. Roy do G. Miquelon do C. Miquelon do C. Miquelon do C. Miquelon do D. Daysion (less fine) do Bedaard do D. Laberge do Dorion do E. Carrier do E. Carrier do E. Carrier do Gauvreau do Gauvreau do Gauvreau do Gauvreau do Jobidon do Jobidon do Gravalered from Ottawa Post Office) J. Jobidon do Gravalered do Gravalered do	Total, Quebec Railway Mail Service
Name.	CUEBEC DIV. J. O. Pageau J. E. Roy J. E. Roy L. Furois G. Bourget G. Bourged G. Bourged G. Bourged G. Bourged G. A. Methot M. P. Laberge G. A. Methot M. Dorion J. Rolet J. Routhier G. Sarrier G. A. Routhier G. Sarrier G. Gauyreau G. Gauyreau G. Gauyreau G. Gauyreau G. Go F. Jobidon J. Nolet Mail Transfer Agent	G. A. Bourgeois Post Office Inspe

	4,696 43	3,113,11	100,780 97
3,400 00	360 00	2,755 68 219 97 137 46	100,780 97
		7.9 7.8 5.4 10.4 81 1.0 4.6 6.3 1.1 4.6 4.7 1.1 4.6 4.7 8.1 1.1 4.6 4.7 8.1 1.1 4.6 4.7 8.1 1.1 4.0 4.7 8.1 1.1 4.0 4.7 8.1 1.1 4.0 4.7 8.1 1.1 4.0 4.7 8.1 1.1 4.0 4.7 8.1 1.1 4.0 4.7 8.1 1.1 4.0 4.7 8.1 1.1 4.0 4.7 8.1 1.1 4.0 4.7 8.1 1.1 4.0 4.7 8.1 1.1 4.0 4.7 8.1 8.1 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0 4.0	16,521 69
710 00 180 00 46 43	360 00	2,640 00 460 00 460 00 460 00 173 34 120 00 2,640 00	84,259 28
Assistant In 3rd Class Cl do Temporary	do Messenger	2nd Class Railway Mail Cl do do do 3rd do Temporary Railway Mail	Grand Total carried forward
J. P. Chillas G. O. Bailey A. Dorais H. Désilets.	E. Teesdale	A. Dorais. J. E. McKenzie. J. V. Genest A. Beaudry C. A. Méthot S. Gervais. H. Desilets.	

DETAIL of all payments for Salaries, &c., in Quebec, made within the Year ended 30th June, 1889--Continued.

Grand Total.	\$ cts.					
Total of Classes.	cts.	00 000 9	10.150.00		90 137 50	
Salary.	& cts.	4,000 00 2,000 00	1,500 00 1,500 00 1,500 00 1,450 00 1,500 00 1,400 00 1,300 00	1, 200 00 1, 100 00	1,050 00 1,050 00 1,050 00 975 00 975 00 975 00	795 70 840 00 800 00 800 00
Service.	Brought forward MONTREAL POST OFFICE.	Postmaster.		de d		3rd do (less fine).
Name.		G. Lamothe	H. A. Bourret. H. Huddell. J. McKeon. V. Baillargeon. J. L. Palmer. J. L. Palmer. O.J. Senez.	T. Pridham. 2nd E. Mayer. C. Cisins. O. Cisment. A. Loftus. A. de Restang. T. Desnoyers. H. Goyette. J. B. A. Daoust. G. Lefebrre. T. Harding. R. Duncan.	W. Hayden. A. Larose. H. D. Gaudry G. Beaudoin. J. Chase.	R. J. Arless. A. E. Auger. J. Filiatreault. A. A. Doray.

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	to 30th November, 1888 (resigned).	
(less fine). (less fine). from 1st November, 1888 (transferred from Winnipeg Post Office)	to 30th November, 1888 (resigned). (less fine). to 31st May, 1889 (deceased).	(less fines)
E. Renaud. do do Chagnon. do do do Chagnon. do	Tansey Tansey O'Neill O'Neill D. E. Mayer Larivière Berseford Go O'Donaghue O'Donaghue O'Donaghue Chandler Chandler A. Giroux E. Lamoureux A. Giroux B. Lamoureux do B. Clemon B. Core Go Barbe Clemon T. Crowe Chordin Go A. Carpenter Go B. Coté Chandler Go Barbe Clemon T. Growe Go A. Carpenter Go B. Coté Go A. Carpenter Go Clemon Go B. Coté Go A. Carpenter Go A. Carpenter Go Clemon Go B. Coté Go A. Carpenter Go Clemon Go Go A. Carpenter Go Go A. Carpenter Go Go Clemon Go Go Clemon Go Clemon Go Go Clemon Go Clemon Go Go Coffey Go Do Lamanque Go Coffey Go Coffey Comandue Go Coffey Comandue Go Coffey Comandue Comandue Go Coffey Comandue C	. S. A. Lalonde do do do
 	:ದಿಸಿಪಡೆರುಗಳಿದ್ದರಪ್ರಪಡೆಗಳಿದ್ದಿದ್ದು 151	ئا د

DETAIL of all payments for Salaries. &c., in Quebec, made within the Year ended 30th June. 1889.—Continued.

Grand Total.	ec Ct.
Total of Classes.	# cts. 775 53
Salary.	\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
Service.	MONTREAL POST OFFICE—Continued. 3rd Class Clerk do do from 1st May, 1889; also temporary from 18th February, 1889. Letter Carrier Letter Carrier Letter Carrier Letter Carrier do from 14th August, 1889 (less fine) Letter Carrier do from 14th August, 1889 (less fine) Letter Carrier do do
Name.	A. Massé. T. J. Crowe G. Clarke. J. E. Bourgeau. G. D. Dumont. G. Duncese. G. Clarke. G. D. Dumont. G. Dumont. G. Dumont. G. Duponte. G. A. L. Auger. J. R. Plante. J. R. Plante. G. Clarke. G. Clark

600 00 539 339 339 539 339 339 539 330 330 530 330 330 530 300 530 300 500 500 500 500 500 500 500 500 500	8	26888888888888888888888888888888888888	100 100 100 100 100 100 100 100 100 100
(less fine).	(less fine).	(Jess fine).	(including \$36.24 for acting as Railway Mail Clerk during a portion of the year). (less fine).
		&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&	
Giroux. O. Beaulnes Cusson. Jacques F. MoShane. Lussier A. Boudreau L. E. Doray G. Grant.	Fenaughty Meehan MoAcke E. Carle E. Carle F. Mitchell Bourgeois F. Dumesnil Waleur Mathieu. Mugent King	CSA. Duboulay. J. Fepin. J. B. Sauriol. T. Latimor J. L. Bisson M. O'Mahony. A. Lortie. T. J. Kelly. T. Moore. D. R. Perrault F. Pepin. J. Ledoux. M. Miggins. L. Miggins. L. Miggins. L. J. Collins.	Poitevin Harney St. Jean McKenna Chabot Campbell T. McRobie B. Moore Valiquette L. St. Onge.
HALLIER GOTT PER PROBLEM OF THE PROB	A KINKAKERETEREE 1 1	10367 103	A HIT CONT. A. Y.

DETAIL of all payments for Salaries, &c., in Quebec, made within the Year ended 30th June, 1889.—Continued.

	1 , ,
Grand Total.	ets.
Total of Classes.	34,001 23 3,864 79 600 00 88 00
Salary.	** \$25.50
Service.	Srd Class Clerks 3rd Class Clerks do from 26th do from 25th April, 1889 Temporary Letter Carrier. Temporary Letter Carrier.
Name.	J. Lemieux A. Gauthier J. Heaney F. X. Brault A. Radakir J. Miraglia. J. Paiement L. J. St. Jean M. Villeneuve P. Cadotte. M. Brunel O. Daoust F. Vincent F. Vincent F. Vincent T. Fenaughty D. McLennan M. R. Johnson N. Mayer T. Fenaughty D. McLennan J. H. Lepine T. Fenaughty D. McLennan J. M. Payfer A. Short R. Dalton A. Mercier L. B. Dumesnil J. Growe P. Harrigan J. Gornan H. Thompson J. Gornan

119,087 13		
300 00	3,400 00 4,700 00 11.136 75	933 33
900 00 600 00 150 00 150 00	2,000 00 1,400 00 1,200 00 1,200 00 1,200 00 1,100 00 1,1	400 00 400 00 133 33 600 00
J. Maher J. Bennett do do D. Lepage D. Lepage E. M. Renouf Total, Montreal Post Office.	A. G. Tourangeau. Postmaster. QUEBEC POST OFFICE. J. E. Bolduc. C. Chamberland. 2nd Class Clerk. G. Chamberland. do. W. Lebel. do.	J. N. A. Gingras. C. Audet. G. Audet. T. M. Maguire. O. do to 31st October, 1888 (transferred to Militia Department) N. Giasson. D. Giasson.

ded.	Grand Total.	et s.	32,546 58	1,130 66	\$257,528 87	
-Conclu	Total of Classes.	\$ cts.				
fune, 1889	Salary.	\$ cts. \$ cts. \$ 000 00 00 00 00 00 00 00 00 00 00 00 0			, : , :	WHITE
Detail of all payments for Salaries, &c., in Quebec, made within the Year ended 30th June, 1889—Concluded.	Service.	Letter Carrier Letter Carrier do d	Total, Quebec Post Office.	Balance of salaries remitted by cheque to Postmasters other than above; being the excess of their salaries over the amount of revenue collected by them to 30th June, 1888. Proportion of salaries transferred from Ontario— Of Ottawa Inspector, Staff and Railway Mail Clerks.	Total.	
DETAIL of al	Name.	R. Wilkinson Y. Houle. R. Pelletier. H. P. Kelly J. P. T. Gnay. J. P. T. Gingras P. N. Gauvin J. Desroches E. Duhault. D. Mercier. A. Pelletier. A. Pelletier. A. Pelletier. A. Pelletier. A. Roulet P. X. Ouellet R. Blackburn. C. N. Langlois A. B. Gingras E. Emond L. H. Beaule. J. Evarts. T. Denechaud.				TI TI CHEMINA

Deputy Postmaster-General.

ITHSON,
Accountant.

PROVINCE OF NOVA SCOTIA.

Grand Total.	& cts.							66 669'6			
Total of Classes.	ets.	00 000	9,000 00	1,200 00	7,050 00	1,100 00	1,000 00 683 33			1 509 24	2,611 72
Night Duty and Milage.	ets.									2 34	323 24 368 48
Salary.	ets.	2,200 00 1,400 00	1,200 00	1,100 00	640 00 480 00 46 66	600 00	173 33 300 00 210 00			1,500 00	00 096
Service.	NOVA SCOTIA DIVISION.	Post Office Inspector. Assistant Inspector.	1st Class Clerk	2nd do do	3rd do do do from 1st June, 1889 (transferred from Halifax Post Office).	Temporary Clerk	Messenger to 31st October, 1888 (deceased). do from 10th April, 1889, also temporary from 1st September, 1888. Tempo ary Messenger to 31st January 1889 (deceased).	Total, Inspector's Office	RAILWAY MAIL SERVICE.	Chief Railway Mail Clerk	ist Class do do
Name.		C. J. Macdonald J. D. Story	L D. Stewart	LT. E. Davison	A. CostleyT. J. Curren	S. Howe. W. E. F. Hennessy.	M. H. Meagher J. H. Kelly D. Wilson			A. Browne	J. McN. Gabriel J. W. H. Cameron
	Service. Salary. Selary. Service. Selary. Milage. Classes.	Name. Nova Scotia Division.	Name. NoVA SCOTIA DIVISION. C. J. Macdonald Nova Scotia Nova Scoti	Name. Name. Service. Service. Night Duty of and	Name. Night Duty Total Gram and of Office Inspector Stevensor Stevensor Salary. Night Duty Total of Total of Total of Total Total of Office Inspector S. Stevensor S. Stevensor S. Stevensor S. Stevensor S. J. R. Sircon S. J. R. Sirco	Name. Name. Service. Salary. Night Duty Total of the Inspector NOVA SCOTIA DIVISION. Service. Service. Salary. Night Duty Total of the Inspector NOVA SCOTIA DIVISION. Sects. Sects.	Name. Name. Service. Serv	Name. Nova Scotial Division Service. Selavy. Night Duty and Division Total of Green Classes. Grammand Classes. Total of Green Classes.	Name	Name	Name

Grand Total.	% €		20,085 08	
Totel of Classes.	\$ cts. 7,909 05	8,061 97		
Nihht Duty add Mileage.	\$ cts. 216 24 2319 424 136 24 1373 88 212 15 113 10 113 83 220 07 113 84 284 86 284 86 285 07 113 87 285 07 113 87 285 07 113 87 285 07 113 87 285 07 113 87 285 07 113 87 285 07			,
.Salary.	\$8000000000000000000000000000000000000	14,990 00		
Service.	2nd Class Railway Mail Clerk do do do do pron 3rd do d		Total, Railway Mail Service	
Name.	R. Davison J. McNeil. S. Hall. G. A. Hawkeeworth. J. D. Ross T. Keith. W. Bennett. W. Campbell. J. Campbell. F. Sower. F. W. H. McRobert. F. W. P. Eaton F. Sower. F. Solston R. H. R. Little D. O'Sullivan R. H. Ross E. Rolston A. McDonald	J. L. Digney		

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ereacu.	Grand Total.	\$ cts.				
200	Total of Classes.	& cts.	4,000 00	2,700 00	4,500 00	11,655 17
t cours, to	Salary.	ets.	2,400 00 1,600 00 1,500 00 1,200 00	1,200 00 1,100 00 1,100 00 1,100 00	88 88 88 88 88 88 88 88 88 88 88 88 88	790 00 600 00 600 00 600 00
of the state of th	. Service.	Brought forward	Postmaster. Assistant Postmaster. 1st Class Clerk.	do do do do do do do	3rd do suspended from 16th to 23rd April, 1889, on leave without salary from 1st May, 1889. do d	Superintendent Letter Carrier Letter Carrier do do
T	Name.		H. W. Blackadar F. V. Tremain E. A. Bent.	A. H. Cunningham. W. H. Chamberlain. 17. O'Bryan. 6 T. G. Creighton.	F. W. Casey W. V. Smith, P. J. Mulcahy C. D. Fracer C. M. R. Lounds, F. J. Power L. W. Travis, W. Parker E. Delaney A. C. Crowe W. H. Walker H. A. Boggs F. C. Kayle E. A. Sullivan D. A. King T. J. Curren P. F. Breman A. E. Gilpin	S. Saunders J. Fitzgerald J. Wilson E. Carroll

DETAIL of all payments for Salaries, &c., in Nova Scotia, made within the Year ended 30th June, 1889—Concluded.

Grand Total.	& cts.					33,767 26	841 08	\$64,393 41
Total of Classes.	& cts.		0,022.00	1789	390 00			
Salary.	& cts.	600 00 600 00 600 00 600 00 510 00 510 00 600 00 60	360 00 117 09	600 00 600 00 502 50	390 00			
Service.	HALITAX POST OFFICE—Concluded.	S. Laurilliard Letter Carrier Mahar do O'Malley do O'Swalley do A. Grant do Davis do Value do Value do A. Lindsay do do do J. Theakston do do do J. Theakston do do do J. Theakston do do do	Temporary Letter Carrier from 4th March, 1889	Letter Collector do	Messenger	Total, Halifax Post Office	Balance of salaries remitted by cheque to postnasters other than above; being the excess of their salaries over the amount of revenue collected by them to 30th June, 1888	Total
Name.		H. S. Laurilliard. J. Mahar. J. O'Malley. R. Myers. J. A. Grant. G. Davis. J. Wall. J. P. Lindsay. J. S. Smyth. M. J. Theakston. M. J. Theakston. J. J. O'Donnell.	A. McIntosh Temporary D. Robb	J. Wood J. J. Mulcahy G. Payne Go do	W. P. Quinane Messenger.			

WILLIAM WHITE,
Deputy Postmaster-Genera

H. Smithson,
Accountant.

PROVINCE OF NEW BRUNSWICK.

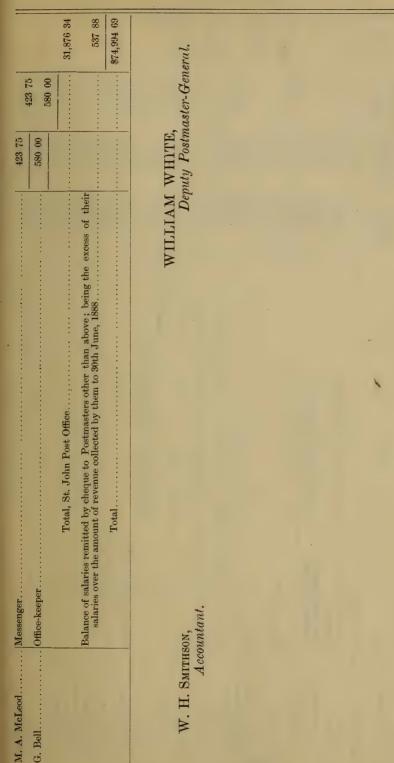
son, the	Grand Total.	& cts.					7,840 00				
f the per 39.	Total of Classes.	e cts.	2,200 00	1,000 00 0 150 00	1 540 00	00 009			1 345 00	1,010 OF	60 741,77
e name o June, 188	Night Duty and Mileage.	& cts.								418 26 404 59	311 37 333 59 266 45 311 74 311 74 359 63 344 23 387 14 305 24
th case, th	Salary.	. s cts.	2,200 00	1,200 00	800 00 740 00	00 009	•		1,345 00	00 096	000000000000000000000000000000000000000
DETAIL of all payments made for Salaries, &c., in New Brunswick; showing in each case, the name of the person, the service or duty performed, and the amount paid within the Year ended 30th June, 1889.	Service.	NEW BRUNSWICK DIVISION.	Post Office Inspector.	do d	3rd do do	Messenger	Tctal, Inspector's Office	RAILWAY MAIL SERVICE.	F. W. Blizard	1st Class Railway Mail Clerk.	2nd do
	Name.		S. J. King Post Off W. C. Whittaker 1st Class	W. R. Avery	C. A. Murray R. Freeze	W. BannisterMessenger			F. W. Blizard	G. M. Ryan. W. J. Weldon	F. A. Estey W. Starkie J. Philps J. R. Pidgeon A. J. Gross H. Wathen D. Price J. G. Miller

DETAIL of all payments for Salaries, &c., in New Brunswick, made within the Year ended 30th June, 1889—Continued.

Grand Total.	s cts.	36,011 51
Total of Classes.	\$ cts.	36,011 51
Night Duty and Mileage.	246 44 44 83 65 88 88 88 88 88 88 88 88 88 88 88 88 88	7,905 30
Salary.	\$ cts. \$ \$ cts. 120 00 00 1720 00 00 1720 00 00 1720 00 00 00 00 00 00 00 00 00 00 00 00 0	28,106 21
Service.	NEW BRUNSWICK DIVISION—RAILWAY MAIL SERVICE—Concluded. 2nd Class Railway Mail Clerk. do do do do do do do do do from 14th August, 1889 Temporary Railway Mail Clerk. Total, Railway Mail Service.	Grand Total carried forward
Name,	D. McKendrick 2nd Class R A. Brittain R. J. Magee S. R. Jack S. R. Maxwell E. L. Willis G. H. Oulton A. Murray J. Campbell H. Nadeau J. H. Nadeau J. H. Nadeau J. H. Smith B. Peck W. S. Hall R. R. Smith D. D'aigle H. W. Belding Temporary	

	Grand Total.	\$ cts.						6,568 96				
	Total of Classes.	# cts.	000	1,700 00	2,100 00	2,270 75	203 21			00 004	9,000,00	7,400
Sam of the same of	Salary.	e cts.	1,700 00	1,200 00	800 00 540 00 520 00 410 75	295 00	173 22 15 48 14 51			2,000 00 1,500 00	1,200 00	1,200 00 1,200 00 1,200 00 1,142 13 1,200 00
	Service.	Brought forward	Postmaster	2nd Class Clerk.	3rd do do to 31st May, 1889 (transferred to St. John Post Office). do do (inclucing arrears)	Letter Carrier, to 31st December, 1888 (deceased)	Temporary Letter Carrier, from 8th January, 1889. do from 12th to 27th October, 1888. do from 24th December, 1888, to 7th January, 1889.	Total, Fredericton Post Office	ST. JOHN POST OFFICE.	E. Willis Postmaster Assistant Postmaster	1st Class Clerk.	2nd do do (less fines).
	Name.		P. McPeake	J. Cameron. W. B. Phair.	E. W. Vavasour. A. E. Wilson. B. Phillips. R. Gardiner.	A. S. Phair	B. Phair. J. D. Perkins. E. Ryan.			E. Willis	M. J. PotterA. W. Reed	H. P. Otty. A. McNichol R. C. McIntyre. G. F. Ring. J. S. Flagfor

Grand Total.	*	
Total of Classes.	cts.	7,992 13 8,652 88 - · · · · · · · · · · · · · · · · · · ·
Salary.	\$ cts. 1,050 00 1,000 00	880 00 00 00 00 00 00 00 00 00 00 00 00
Service	2nd Class Clerk.	Stud do do do do do do do do from 1st June, 1889 (transferred from Fredericton Post Office). Temporary Clerk. Superintendent Letter Carrier. Letter Carrier. Letter Carrier do
Name.	J. L. Finen	J. W. Ring R. A. Hamlin T. Jenkins J. H. Ritchie J. P. Bell A. Thompson J. C. Clark J. C. Clark F. Ferguson J. R. Copp J. P. Hipwell W. O. Duhlam J. Malcolm J. A. Ewing G. E. Withers R. McLaughlin W. Young W. Young W. Young C. Belyea W. Lane J. McManus J. Beamish U. Belyea J. McManus J. Beamish U. Belyea J. McManus J. Bemish U. Belyea J. McManus J. Bennish U. Belyea J. McManus J. Bennish U. Belyea J. McManus J. Belyea J. McManus J. Bennish U. Belyea J. McManus J. A. Mailman



ROVINCE OF MANITOBA, &c.

DETAIL of all payments made for Salaries, &c., in Manitoba and the North-West Territories; showing, in each case, the name of the person; the service or duty performed; and the amount paid within the Year ended 30th June, 1889.

Grand Total.	ets.	5,278 64	2,450 80	2,342 43	10,449 48		1,634 07	3,234 08
Night Duty and Mileage.	ects.	10			81 74	130 17	542 37 608 43 507 60 508 47 500 97 519 33 420 11	236 80 455 33
Provisional Allowance.	\$ cts. 156 20	136 80 114 00	86 91 118 56 104 88 82 08	70 11	1,160 24	153 90	114 00 102 60 102 60 108 30 96 90 91 20	127 68 101 04
Salary.	\$ cts. 2,200 00 1,350 00	1,200 00 1,000 00	610 00 520 00 460 00 360 00	307 50	9,207 50	1,350 00	800 00 720 00 720 00 760 00 680 00 640 00 640 00	560 00 443 26
Service.	Post Office Assistant In	ao ao ao 2nd Class Clerk	3rd do do do from 1st October, 1888 (transferred from Railway Mail Service).	Messenger, from 1st October, 1888 (transferred from Winnipeg Post Office)	Total, Inspector's Office.	Chief Railway Mail Clerk.	2nd Class Railway Mail Clerk do d	ard do (suspended from 2nd February to 25th March, 1889)
Name.	W. W. McLeod	A. McGillis. C. F. Tuck	991. L. Broughton W. T. Macpherson E. R. Stevenson. A. S. Royal.	S. Knighton Messenger,		C. E. Kavanach	J. A. Carman J. G. Norris C. R. Stewart, L. T. Prudhomme, W. B. Sloan H. H. Phinney, F. E. Harrison,	J. G. Moore

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	21,839 72	35,737 66		i i	4,575 60	L, 556 80	4,859 03
447 557 557 557 557 557 557 557	396 30 630 69 189 49	14,595 94					
88888888888888888888888888888888888888	109 44 115 52 89 98 10 59	3,454 64		170 40 205 20	136 80	136 80 135 37 124 68 124 68	114 00 98 31 98 25 98 55 114 00 98 65 98 90 114 00 98 90
520 00 00 00 00 00 00 00 00 00 00 00 00 0	480 00 506 67 394 66 46 45	17,687 08		2,400 00 1,800 00	1,200 00	1,200 00 1,187 50 975 00 975 00	800 00 630 00 640 00 610 00 600 00 800 00 800 00
do d	Temporary Railway Mail Clerk (including arrears) do from 5th September, 1888 do from 27th May, 1889.	Total, Manitoba, &c., Railway Mail Service	WINNIPEG POST OFFICE.	Postmaster. Assistant Postmaster.	1st Class Clerk.	2nd do do do do	3rd do do do do do to 31st October, 1888 (transferred to Montreal Post Office).
T. A. Scott. J. T. Colton J. Kinney. T. J. Smith. A. C. James A. Lamothe. A. Hicks. W. T. Barrett J. D. Sherman. A. McBride. A. M. Ferguson. G. L. Ferguson. G. L. Ferguson. R. W. Holland A. S. Royal. W. A. Porter W. S. Lipsett B. A. Parson. H. H. McCulloch	P. W. Allaire. D. Cameron. J. F. Sproule. 19 E. D. H. Wilkins.			W. Hargrave. R. R. Brough.	C. M. Boswell	E. Barrett. G. H. Allen J. Scott H. C. Dumas.	J. R. Simons. W. A. Rice. G. A. Hargrave. W. Braden. F. Arneil. A. Monkman. D. J. Smith. W. Johnson.

cts. 8,632 78 73 1,320 74 DETAIL of all payments for Salaries, &c., in Manitoba, &c., made within the Year ended 30th June, 1889—Concluded. Grand Total. 3,383 7,098 **6** cts. Provisional Night Duty and Allowance. Mileage. 42 98660 859 98661 8 888820028118884888 25252 23233333 cts. 888882 8828888 8228 1110 1110 1100 100 100 100 100 400 400 323 317 280 233 360 270 224 221 from, and temporary to, 10th April, 1889). from 1st October, 1888, to 31st May, 1889 (resigned)...... Superintendent Letter Carrier from 1st August, 1888 (transferred from Ottawa Post Office) to 30th September, 1888 (transferred to Manitoba Division). to 28th February, 1889 (transferred to Manitoba Division) WINNIPEG POST OFFICE—Concluded. rom 20th November 1888..... from, and temporary to, 10th April, 1889... Femporary Letter Carrier from 1st October, 1888... Temporary Clerk.... to 31st August, 1888 (resigned). from 10th September, 1888 from 15th September, 1888 from 1st December, 1888. from 19th October 1888. 999 999999 222222 99999999999 M. Morice. 7. S. Wallace I. Ruttan I. E. Rowan W. J. Gow.
W. Cunningham
R. Miller.
W. J. Cuthbert, jr.
W. M. Burrows,
J. H. Lilly.
A. Taylor.
S. J. Smith.
W. H. Taylor.
W. J. Cuthbert, sr.
J. Close.
S. Knighton.
H. W. Dayton.
N. Gow. F. A. Chabot..... A. Parson.... R. Mills.
S. Cox.
M. Denison C. Macdonald. Gouin Garrett....

)r1a.			bess:
50	001 00	32,453 40	10,449 48 35,737 66 32,453 40	78,640 54	513 97	79,154 51
171 00		42 73	81. 74 14,595 94 42. 73	14,720 41		
171 00	85 50	4,655 07	1,160 24 3,454 64 4,655 07	9,269 95		
390 00	00 009	27,755 60	9,207 50 17,687 08 27,755 60	54,650 18		
A. Pridham Porter, including arrears of provisional allowance		Total, Winnipeg Post Office	Totals of Inspector's Office. do Railway Mail Service. do Winnipeg Post Office.	Grand Totals.	Balance of salaries remitted by cheque to Postmasters other than above; being excess of their salaries over the amount of revenue collected by them to 30th June, 1888.	Total.

WILLIAM WHITE,
Deputy Postmaster-General.

W. H. Smithson,
Accountant.

PROVINCE OF BRITISH COLUMBIA.

DETAIL of all payments made for Salaries, &c., in British Columbia, showing, in each case, the name of the person, the service or duty performed, and the amount paid within the Year ended 30th June, 1889.

	Grand Total.	& cts.	00 999 6	178 57	589 44	4,424 01		9 874 97	1 714 %	7 300 03	858 22	12,837 48	2.286 00	1,349 87
	Night Duty and Mileage.	s cts.		6 40		6 40		10 40 683 52	731 86	235 92 742 13 707 86 710 38 722 53 760 48	236 04	5,541 12		
	Provisional Allowance.	\$ cts.	285 00 171 00		109 44	565 44		136 80 96 75	182 40	91 12 117 80 109 44 109 44 109 14 109 14	109 44 6 08	1,178 15	286 00	49 87
	Salary.	& cts.	2,000 00 1,200 00	172 17	480 00	3,852 17		960 00	800 00	430 00 516 67 480 00 480 00 478 67 478 71	480 00 26 66	6,118 21	2,000 00	1,300 00
1	Service.	BRITISH COLUMBIA DIVISION.	Post Office Inspector.	2nd Class Clerk, from 10th April, 1889 (transferred from Railway Mail Service)	ard do bre	Total, Inspector's Office	RAILWAY MAIL SERVICE.	1st Class Railway Mail Clerk (including arrears; less fine)	do do bug	3rd do to 10th April, 1889 (transferred to Inspector's Office) do do (less fine) from and temporary to 14th May, 1889 (less fine).	Temporary Railway Mail Clerk from 11th June, 1889.	Total, Railway Mail Service.	Postmaster	1st Class Clerk
	Name.		E. H. Fletcher.	H. B. Rogers	F. A. Carmichael 3rd	17	0	J. Rooney	W. T. Cox	H. B. Rogers R. Y. Ellis. R. P. Drummond J. O. McLeod J. H. Thain F. R. Dougall.	J. H. Good Temporary E. O. Atkinson		N. Shakespeare	T. A. Cairns

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1 791 60	1,141 vo	60 500 % 61 6 61 6	1,824 42	13,257	4,424 12,837 13,257	30,519	\$30,812	eral,
					6 40	5,547 52		naster-Gen
52 20 49 40	159 60 89 88 104 88 95 76 100 32	91 20	28 28 28 28 28 28 28 28 28 28 28 28 28 2	1,593 33	565 44 1,178 15 1,593 33	3,336 92		WILLIAM WHITE, Deputy Postmaster-General,
815 00 805 00	700 00 394 19 460 00 419 00 440 00	335 48 400 00 400 00 400 00 410 00 64 51 64 52 64 5	380 00 380 00 380 00 380 00 1 00 1 00 1 00	11,664 44	3,852 17 6,118 21 11,664 44	21,634 82		ILLIAM
do promoted from 3rd class, 1st October, 1888do do do	do do to 11th May, 1889 (resigned). do do on leave without salary, from 1st June, 1889 (less fine) do	Temporary Clerk do do do (including arrears) do from 3rd September, 1888 do from 3rd September, 1889 do from 3rd Suptember, 1889 do from 20th May, 1889 do from 184 June, 1889	Temporary Letter Carrier, to 30th April, 1889 (resigned). do do do from 1st May, 1889 do from 21st December, 1888 to 5th January, 1889 do one day, 20th February, 1889.	E. McKoberts Messenger, also employed as Temporary Lewer Carles for days	Recaptituation. Totals of Inspector's Office. do Railway Mail Service. do Victoria Post Office.	Grand Totals	Balance of salaries remitted to Postmasters other than above being the excess of their salaries over the amount of revenue collected by them to 30th June, 1888 Total.	
C. W. Newbury	T. Chadwick. F. R. Sargison. R. J. Butler. G. A. McCulloch. J. S. Smith.		T. W. Speed. D. G. McKay A. Smith. C. McComac. J. H. Friend. J. P. Wallens. J. Creed.	J. E. McKobertsMe	To		<u>Ba</u>	W. H. Smithson, Accountant.

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PROVINCE OF PRINCE EDWARD ISLAND.

DETAIL of all payments made for Salaries, &c., in Prince Edward Island; showing in each case the name of the person, the service or duty performed, and the amount paid within the Year ended 30th June, 1889.

al Grand totals	\$ cts \$ cts.	2,100 00	400 00 10,120 00	2,616 05	1 :
Total of Classes.	2,00	%, % E	4 :	2,61	
Night Duty and Mileage.	ets.			169 52 144 66 141 87 . 456 05	
Salary.	\$ cts. 2,000 00 1,200 00 900 00	8800 00 8800 00 8800 00 6600 00 550 00 480 00 410 00	400 00	800 00 720 00 640 00 2,160 00	
Service.	Assistant Post Office Inspector and Postmaster	999999999 p.	Temporary Clerk. Total, Charlottetown Post Office	O. R. Crabbe. 2nd Class Railway Mail Clerk. T. W. Haszard. do do D. J. Macdonald. Acting Railway Mail Clerk. Total, Railway Mail Service.	Balance of salaries remitted by cheque to Postmasters other than above, being the excess of their salaries over the amount of revenue collected by them to 30th June, 1888.
Name.	F. de St. C. Brecken Assistant I	M. White. B. Trainor J. M. Campbell J. McCarey CJ. G. W. Brown M. W. Murphy J. N. Robertson J. Macdonald. W. H. F. Gill.	J. Callaghan Temporary	. R. Crabbe W. Haszard	

W. H. SMITHSON, Accountant.

PROVINCE OF ONTARIO.

DETAIL of all payments for Travelling Expenses, incurred in the service of the Post Office Department in Ontario, made within the Year ended 30th June, 1889.

Name.	Service.	Amount.
J. Dewe, Chief P.O.I W.E. Bennett, Asst. P.O. I Le F. A. Maingy	Travelling expenses, within Ontario	\$ cts. 292 65 587 40 20 50
D. Spry, P.O.I	Travelling expenses. do do do Kingston Division.	366 25 319 05 0 75
G. E. Griffin, P.O.I. A. Jones, Asst. P.O.I. P. H. Macarow J. C. Strange D. E. Rose C. G. Shannon H. F. Wilmot	Travelling expenses	17 00 442 37 43 35 51 00 6 00 18 00 18 00
R. W. Barker, P.O.L C. Fisher, Asst. P.O.I A. McWhinney	London Division. Travelling expenses. do do Ottawa Division.	527 31 328 75 16 00
T. P. French, P.O.I. G. Marsan, Asst. P.O.I. C. P. LeSueur, Asst P.O.I D. Moloney. W. O. Mercer.	Travelling expenses within Ontario. do Dominio Division.	728 50 189 50 40 50 1 00 24 00
H. G. Hopkirk, P.O.I D. Moloney, Asst. P.O.I.		596-74 17-50
M. Sweetnam, P.O.I G. A. Burnham, Asst. P. O. I C J. Winstanley G. T. B. Gurnett	do do do do	353 77 294 75 1 50 0 65
Asst. P. M., Belleville Postmaster, Toronto	Travelling expenses. do	0 25 43 00
British Mail Clerks	Ontario's proportion of expenses, whilst in charge of British Mails. Total	966 35 \$6,312 39

WILLIAM WHITE,

Deputy Postmaster-General.

W. H. SMITHSON,

Accountant.

PROVINCE OF QUEBEC.

Detail of all payments for Travelling Expenses incurred in the service of the Post Office Department, in Quebec, made within the Year ended 30th June, 1889.

Name.	Service.	Amount.
J. Dewe, Chief P. O. I W.E. Bennett, Asst. P.O. I	Travelling expenses, within Quebecdo	\$ cts. 131 50 51 75
E. F. King, P. O. I D. Nelligan, Asst. P. O. I. J. E. Gervais, Asst. P. O. I. J. A. Madore	Montreal Division. Travelling expenses	478 85 546 72 453 75 25 55
T. P. French, P. O I G. Marsan, Asst. P.O.I	OTTAWA DIVISION. Travelling expenses, within Quebec	171 94 147 15
A. Bolduc, P. O. I J. L. Anctil, Asst. P.O.I. C. Vohl. O. Fréchette J. B. Caouette. L. J. H. Larue. do L. E. Simard. do J. Boufford. J. J. Battle.	Quebec Division. Travelling expenses	1,208 00 460 80 102 00 13 00 6 75 19 50 10 40 31 50 39 60 16 70 4 00
G. A. Bourgeois, P. O. I. J. P. Chillas, Asst. P.O.I. G. O. Bailey. A. Dorais.	Three Rivers Division. Travelling expenses	635 98 655 75 85 45 25 50
	Travelling expenses	2 00 369 15 \$5,693 29

W. H. SMITHSON,
Accountant.

WILLIAM WHITE,

Deputy Postmaster-General.

PROVINCE OF NOVA SCOTIA.

DETAIL of all payments for Travelling Expenses incurred in the service of the Post Office Department, in Nova Scotia, made within the Year ended 30th June, 1889.

Name.	Service.				
		8	cts		
J. Dewe, Chief P.O.I	Travelling expenses within Nova Scotia	46	35		
Le F. A. Maingy	do do	69	50		
C. J. Macdonald, P.O.I.	do	721	20		
J. D. Story, Asst. P.O.I.	do		00		
D. Stewart, Acting Asst.		10	00		
P.O.I		448	45		
T. G. Creighton	do	~ ~ ~ ~	28		
S. Howe	do		50		
D. 110WC		20	00		
Postmaster Livernool	Travelling expenses	9	40		
I MoN Gabriel	Expenses whilst in charge of British Mails		00		
J. MICH. Gabrier	Expenses withst in charge of Dritish Matis	ð	00		
	Total	\$1,374	00		

WILLIAM WHITE,

Deputy Postmaster-General.

W. H. SMITHSON,
Accountant.

PROVINCE OF NEW BRUNSWICK.

DETAIL of all payments for Travelling Expenses incurred in the service of the Post Office Department, in New Brunswick, made within the Year ended 30th June, 1889.

Name.	Service.	Amount.
S. J. King, P.O.I W. C. Whittaker W. R. Avery	Travelling expensesdo do do	\$ ets. 565 89 227 00 95 05
M. Sweetnam, P.O.I., Toronto	do (within New Brunswick)	53 15 \$941 09

WILLIAM WHITE,

Deputy Postmaster-General.

W H. SMITHSON,
Accountant.

PROVINCE OF MANITOBA, &c.

DETAIL of all payments for Travelling Expenses incurred in the service of the Post Office Department, in Manitoba and the North-West Territories, made within the Year ended 30th June, 1889.

Name.		Service.		Amount.
W.E.Bennett, Asst. P.O.I	Travelling expenses wi	thin Manitoba,	&c	\$ cts.
W. W. McLeod, P.O.I	do	do		40 50
A. W. Cairns, Asst. P.O.I	do	do		277 50
A. J. Patton, Asst. P.O.I	do	do		600 00
		Total		\$927 50

WILLIAM WHITE,

Deputy Postmaster-General.

W. H. SMITHSON,
Accountant.

PROVINCE OF BRITISH COLUMBIA.

DETAIL of all payments for Travelling Expenses incurred in the service of the Post Office Department, in British Columbia, made within the Year ended 30th June, 1889.

Name.	Service.		Amount.	
			1	\$ cts.
E. H. Fletcher, P. O.I	Travelling expens	ses		751 40
W.H.Dorman, A'st P.O.I	do		. :	313 10
F. A. Carmichael	do	as acting Railway Mail	Clerk	48 00
H. B. Rogers	do	do		67 50
C. W. Finlaison	. do .	do		100 50
		Total		\$1,280 50

WILLIAM WHITE,

Deputy Postmaster-General.

W. H. SMITHSON,
Accountant.

PROVINCE OF PRINCE EDWARD ISLAND.

DETAIL of all payments for Travelling Expenses incurred in the service of the Post Office Department, in Prince Edward Island, made within the Year ended 30th June, 1889.

Name.		Service.	Amount.
F. de St. C. Brecken, As-	•		\$ ets.
sistant P. O. I	Travelling expense	es	121 54
J. G. W. Brown	do	as acting Railway Mail Clerk	31 50
J. McCarey	do	do	7 50
J. M. Campbell	do		2 25
		Total	\$162 79

WILLIAM WHITE,

Deputy Postmaster-General.

PROVINCE OF ONTARIO.

DETAIL of all payments in discharge of Tradesmen's Bills, for articles supplied for the service of the Post Office Department in Ontario, made within the Year ended 30th June, 1889.

Name.	Particulars.	Amoun
		\$ c
3, A. Bank Note Co	Engraving and printing postage stamps, post cards, &c., for th	e 07 100
Pritchard & Androws	Post Office Department, in Ontario Office stamps and seals, &c., for the P. O. Department, in Ontario	27,100
do	Office scales and weights do . Department, in Ontario	512
. Wilson & Son	do do .	. 120
. G. Pratt	Coin scales do .	
laynard, Harris & Co osamond Woolen Co	Letter Carriers' uniform materials do .	010
V. Cummings, Sons & Co	a	361
aton Manufacturing Co.		236
ryson, Graham & Co	· do do .	. 11
. J. Devlin	Re-covering Letter Carriers' caps, for the P. O. Department, i	
Gagné & Co	Ontario	386
Force	Letter Carriers' hoots do	30
. S. Montgomery	do waist belts do .	. 11
S. Montgomery	Street letter boxes do .	. 144
. Iruman	Making and repairing postage stamp boxes do .	. 102
Stevenson	Repairing postage stamp boxes do	P. 17
cKinley & Northwood.	D. 11 M. 11 (1) 1 241 1 0	. 45
. Barnard	Obliterating stamps do .	. 18
. Weekes		. 25
W. Allan & Co	Patent bag holders, &c. do Stamping machine rollers do	$\frac{7}{2}$
Leslie	Repairing office clock do	1 1
Wilson & Co	Framing pictures for the Postmaster-General's room	$\tilde{7}$
cKinley & Northwood.	Framing pictures for the Postmaster-General's room	. 10
I. Sewrey	Repairing copying press, &c. do	. 4
. A. Douglas	Caligraph copy-holder do	
Henderson	Hardware do	• [
. A. Dutton	Matches	. 0
G. Bastow	Repairing street letter boxes for P.O.I., Kingston.	. 8
. H. Roberts	Locksmith's work do	$\frac{2}{1}$
. Waldron S. Henderson		
Muckleston & Co	Hardware do	$\cdot \bar{0}$
evens & Burns	Street letter boxes supplied P.O.I., London	. 392
Anundson	Hardware do Street letter boxes supplied P.O.I., London. Repairing office furniture, &c. do	111
. E. Young	Caligraph and office cabinet for P.O.I., Ottawa	. 111
utterworth & Co	Hardware, &c. do	
. J. Fraser	Sweet oil do	. 0
Dunsmore & Son	Water cooler and filter for P.O.I., Stratford	. 7
Ward	Soap, matches, &c. do	2
cKinley & Northwood.	Railway Mail Clerks' tin boxes for P.O.I., Toronto.	70
lowland Sons & Co	Candles, matches, &c. Gailway Mail Clerks' tin boxes for P.O.I., Toronto. Street letter box locks Mail bag catchers do do	. 49
rand Trunk Ry. Co	Mail bag catchers do	19
H. Sparrow	Repairing Railway Mail Clerks' boxes do	
lills Bros	Mail bag catchers do Repairing Railway Mail Clerks' boxes do Carpenter's work do Soap and broom do	1
& J. Taylor	Renairing office safe lock do	1
. D. Ford	Repairing lock boxes, &c., P.O., Belleville	. 8
S. Reeves	Repairing street letter boxes do Bedding do	4 4
w. Dunnet	Bedding do	2
Vavis & Gibson	Soan and soda de	0
S. Tickell & Sons	Mirror do	. 1
V. McGie	Plumber's work do	. 0

DETAIL of all payments in discharge of Tradesmen's Bills, for articles supplied for the service of the Post Office Department, in Ontario, made within the Year ended 30th June, 1889.—Continued.

Name.	Particulars.	Amoun
		\$ c
7. A. Hamilton, P. M	To pay for repairing street letter box at Collingwood	1
J. Rankin, P. M	To pay for repairing office scales at Dover Centre	0
ritchard & Andrews	Money order pay stamp for P.O., Forest	1
Colder & Co	do do Goderich	153
H. Lightfoot	Letter Carriers' boots do	131
. F. Tanner	Letter Carriers' boots do	73
Mills & Son	do caps do	24
S. Montgomery	do waist belts do	5
itch & Co	Repairing street letter boxes do Repairing and putting up street letter boxes do	37 37
Kinley & Northwood.	Oil, &c. do	0
eel & Sowter	Repairing and painting mail truck at P.O., Jarvis	6
. Cannon	Making Letter Carriers' uniforms for P.O., Kingston	115
& H. Borbridge F. Tanner	Letter Carriers' boots do	$\frac{38}{21}$
J. Devlin	do do fur caps do	19
S. Henderson	Soap, brooms, matches, &c. do	8
Waldron	Towelling, cloth for stamping pads, &c. do	$\frac{7}{2}$
Chanteloup	Stamping machine rollers do	7 5
M. Wilkinson & Son G. King & Co	Sorting baskets do	$\frac{3}{2}$
Muckleston & Co	Hardware do	$\tilde{2}$
. M. Brennan	Office stool do	1
Mahon Bros		0
	Moving street letter box for P.O., Lindsay	$\frac{2}{1}$
itchard & Andrews	Repairing street letter box do	1
Boyd	Making Letter Carriers' uniforms for P.O. London	185
Cook	Letter Carriers' boots do	135
. F. Tanner	do	65
well, Atlen & Bricken- den	do fur caps do	17
S. Montgomery	do waist belt do	0
Anundson	Repairing postage stamp boxes do	4
R. Gurd	Brooms and brush do	$\frac{4}{2}$
A. Brock Lowry	Repairing numbering machine, &c. do	i
Sykes	Carpenter's work for P.O., Oshawa	$1\overline{5}$
Gagné & Co	Making Letter Carriers' uniforms for P.O., Ottawa	324
& H. Borbridge	Letter Carriers' boots do	130
F. Tanner	do do do	70 4
J. Devlin	do fur caps do	38
S. Montgomery	do waist belts do	3
H Bartlett	Attendance on clocks do	60
P. Famondo	Stamping machine rollers do	12 11
D. Graham	Rubber hose, feather dusters, &c. do	8
te & Co	Brooms, soap, &c. do	7
W. Allen & Co	Patent mail bag holders do	4
aves Bros	Hardware do	$\frac{2}{1}$
& G. Hay Kinley & Northwood.	do	0
Miller	Erecting street letter box at Owen Sound	5
Waites	Repairing do do	1
Elliott	Putting up letter box at Perth Railway Station	3
Trying	Repairing street letter box at Picton	$\frac{1}{0}$
Irving. Leonard	do do Port Hope	1
tchard & Androws	Money order pay stamp for P O Prescott	î
Sanogon	Putting up street letter boxes, &c., at St. Thomas. Making Letter Carriers' uniforms for P.O., Toronto. Letter Carriers' boots	6
NF 13 0 C	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	1,333

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Detail of all payments in discharge of Tradesmen's Bills, for articles supplied for the service of the Post Office Department in Ontario, made within the Year ended 30th June, 1889.—Concluded.

W. F. Tanner			Particulars.		
W F Tonnon				8	ets.
	Letter Carriers' boots, for	Post	Office, Toronto	22	9 36
J. & J. Lugsdin	do caps		do		3 50
R. S. Montgomery	do waist bel	ts	do		9 75
Γ. Pells	Carpenters' work		do		9 77
		eases f	or street letter boxes, Toronto		0 90
	Locksmith's work, P. O.				7 40
E. H. Roberts	do	do		14	6 86
The E. & C. Gurney Co		do			7 00
J. E. Ellis & Co	Attendance on clocks	do		1 40	5 00
	Stamping machine rollers				9 20
Lyman Bros. & Co		do		1	7 81
	Turpentine, oil, broom, &	c. do			7 35
W. A. Murray & Co		do			3 15
		for bra	anch office, Peter St., Torontc		2 00
			Station		1 00-
			indsor		7 20
P. Peters		do			6 34
G. A. & E. B. Neveux	Hardware	do			4 00
F. H. Mann		do			4 15
E. Langlois		do			1 70
Canada Patent Brush Co.		do		1	1 50
	Feather duster	do	*****************		1 35
	Repairing office furniture				1 25
J. Rvan	Making and erecting ma	il-cate	hing posts at Berriedale, Creswell		
					50 00
A. McCarthy	To pay expenses in conne	ection v	with sundry mail-catching posts		5 85
I. Rvan	Repairing mail-catching	post at	Bramley		4 00
W. C. Andrew			Creswell and Josephine		3 75
E. Evans.		do	Creswell		1 00
L. M. Grant	Making do	do	Dumbarton		2 75
C. Stata		do	Farran's Point		1 84
J. A. Blain		do	Gilford Station		1 50
M. Callaghan		do	Melancthon Station		0 25
F. Freeman		do	Proton Station		2 50
2 . 2					

WILLIAM WHITE,

Deputy Postmaster-General.

PROVINCE OF QUEBEC.

DETAIL of all payments in discharge of Tradesmen's Bills, for articles supplied for the service of the Post Office Department, in Quebec, made within the year ended 30th June, 1889.

Name.	Particulars.	Amount
B. A. Bank Note Co	Engraving and printing postage stamps, post cards, &c., for the	\$ et
	Post Office Departement, in Quebec	10,338 1 $1,298 3$
do	Office scales and weights do	250 7
C. Wilson & Son L. G. Pratt		78 7 7 8
	Letter Carriers' uniform materials do	516
Rosamond Woolen Co	do do	501
V. Cummings, Sons & Co		197
Paton Manufacturing Co.	do do Re-covering Letter Carriers' caps, for the P. O. Departement, in	128 9
c. g. Devilli	Quebec	210 3
C. Gagné & Co	Making Letter Carriers' uniforms for the P. O. Department, in	210 (
	Quebec	41 (
. Force	Letter Carriers boots for the P. O. Department, in Quebec	9 (
R. S. Montgomery	do waist belts and straps do Making and repairing postage stamp boxes do	13 8 54 (
. Stevenson	Dominion ensigns do	19 (
H. Barnard		12
IcKinley & Northwood.	Railway Mail Clerks' tin boxes do	10 (
E. Chanteloup	Street letter box keys for Chief Post Office Inspector	14
do	Repairing street letter boxes, &c., for P O. I., Montreal	303 8
. Giroux	Painter's work, do	75 (14)
he E. & C. Gurney Co		19
. Whitty	Repairing street letter boxes, &c., for P. O. I., Quebec	132
'. X. Robitaille	do do	16 4
. Garneau Son & Co	Materials for postal maps of the Province of Quebec, for P. O. I	OF -
R Morin	Quebec. Repairing Ry. mail clerks' tin boxes, for P. O. I., Quebec.	$\frac{35}{26}$ 1
Bailey	Street letter boxes do	20 (
Indrews Bros.	Hardware do	8 4
W. Binet	Brooms, soap, matches, &c. do	7 1
. Jones, Agent	Whisperphone do	1 4
avigne & Grenier	Making mail box for P. O. I., Three Rivers.	$\frac{10}{2} \frac{0}{8}$
B Bellefeuille & Co	Repairing Railway Mail Clerk's tin box, Three Rivers	$\frac{2}{2}$
'. Allard	Erecting street letter boxe at Lévis	5
. & E. McIntyre	Making Letter Carriers' uniforms for P. O., Montreal	992
K. McLaren	Letter Carriers' boots do	315
V. F. Tanner.	do do	158
anthier & Coryson, Graham & Co	do caps dodo do uniform material do	$72 \ 7$
Chanteloup	Locksmith's works &c. do	139
I. Grant & Son	Attendance on clocks do	93 (
O'Connor	Stamping pads and repairs do	64 (
. J. Maxwell & Co	Lumper do	44 (
I. Bulwer & Bro IcArthur & Co		16 8 13 7
I. A. Nelson & Sons	Paints, oils, &c. do Brooms, feather dusters, &c. do	14 1
. Walker & Co	Hardware do	11 4
ravel Bros	Soap do	8 (
rothingham & Workman	do do	7 (
Pelosse	Sorting baskets do	3 2
Mitchell & Co	Repairing locks, &c do	$\frac{3}{2}$
ational Manufact'g Co. C. O'Donoghue IcKinley & Northwood.	Repairing flags do	1 5

Detail of all payments in discharge of Tradesmen's Bills, for articles supplied for the service of the Post Office Department, in Quebec, made within the year ended 30th June, 1889.—Concluded.

Name.	Particulars.		
A. Bolduc, P.O.I. J. E. Caron. W. F. Tanner. R. J. Devlin Dugal & Co. Bryson, Graham & Co. G. Seifert. A. Bidigare. Hardy & Drolet. Z. Vandry & Sons. J. Hamel & Co. C. Pitt. L. Lavoie. Prtchard & Andrews.	do do moccasins do cap do uniform material Attendance on clocks Cleaning and repairing office stamps Brooms, soap, matches, &c. Tin boxes for stamp issue office Linen for use of charwomen Sorting basket Fitting up letter box at Rimouski Railwa Money Order pay stamp for P. O., Sorel. do do Stans Erecting mail-catching post at Notre Da do St. Anacl	do d	\$ cts 111 00 68 75 84 00 51 24 36 75 4 25 7 50 45 00 18 00 16 74 16 00 0 86 0 70 3 00 1 00 4 00 1 50

WILLIAM WHITE,

Deputy Postmaster-General.

PROVINCE OF NOVA SCOTIA.

DETAIL of all payments in discharge of Tradesmen's Bills for articles supplied for the service of the Post Office Department, in Nova Scotia, made within the year ended 30th June, 1889.

Name.	Particu	lars.		Amoun	ıt.
				8	ets
B. A. Bank Note Co	Engraving and printing postage s		cards, &c., for the		
72 1. 1. 2.0.4. 7	Post Office Department in Nov			3,700	
Pritchard & Andrews				725	
do		do	do		12
C. Wilson & Son	do	do	do	123	
L. G. Pratt	Coin scales	do	do		50
	Letter Carriers' uniform materials	do	do		13
Paton Manufacturing Co.		do	do		75
Rosamond Woolen Co	do	do	do		49
W. Cummings, Sons & Co	do Contraction	do	do		44
R. J. Devlin	Re-covering Letter Carriers' caps	do	do	00	15
C. Gagne & Co	Making Letter Carriers' uniforms	do do	do		50
T. Force	Twine for P. O. I., Halifax	do	do		50
A. J. Grant & Co	Twine for P. O. I., Halliax	· · · · · · · · · · · · · · · · · · ·		250	
	Locksmith's work for P. O. I., Hall	пах		90	00
Truro Foundry and Ma-				40	00
chine Company					00
C. & W. Anderson	Brooms, soap, &c., do Hardware do				09
Theakston, Angwin & Co. Clayton & Sons	Making Letter Carriers' uniforms for		far	185	00
A. J. Grant & Co		do		210	
J. Lilly		do do	• • • • • • • • • • • • • • • • • • • •		50
R. J. Devlin		do			75
C. W. Davies		do	**********		90
	Mail bag stretchers	do			00
Gordon & Kieth		do		14	
Hattie & Mylius		do			50
W. Slaughter		do	*******		80
R. H. Cogswell	Attendance on clocks	do	* * * * * * * * * * * * * * * * * * * *		00
R S Montgomery	Letter Carriers' waist belt	do			75
	Money Order pay stamp for P. O.,	0.0			00
		•		\$5,945	

WILLIAM WHITE,

Deputy Postmaster-General.

PROVINCE OF NEW BRUNSWICK.

Detail of all payments in discharge of Tradesmen's Bills, for articles supplied for the service of the Post Office Department in New Brunswick, made within the Year ended 30th June, 1889.

Name.	Particulars.	Amount.
B A Bank Note Co	Engraving and printing postage stamps, post cards, &c., for the	\$ ets.
D. H. Buik Itole Co	Post Office Department in New Brunswick	2,620 27
Pritchard & Andrews	Office stamps and seals for P. O. Department in New Brunswick.	484 03
	Office scales and weights do	133 85
L. G. Pratt	Coin scales do	2 50
Maynard, Harris & Co	Letter Carriers' uniform materials for do	75 95
Rosamond Woolen Co	do do	73 75
Paton Manufacturing Co.	do do	18 96
W. Cummings, Sons & Co		29 02
	Re-covering Letter Carriers' caps do	31 10
C. Gagné & Co	Making Letter Carriers' uniforms do	20 50 9 00
	Till Committee	4 50
T. Force	Deministration and the second	29 44
G. Hutchinson	Attendance on clocks for P. O. I., St. John.	50 00
Truro Foundry and Ma-		00 00
chine Co	Street letter boxes do	14 00
	Repairing street letter boxes do	3 10
J. W. Barnes & Co	Towels, &c. do	4 30
	Feather dusters and brushes do	7 03
H. W. Barker	Methylated spirits do do	2 70
	Brooms, matches, &c. do	1 60
	Putting up street letter boxes at P. O., Moncton	20 00
	Making Letter Carriers' uniforms, P. O., St. John	96 00
J. Hammond		55 25
W. F. Tanner	do	29 28
TEI CI DOMOS CO DETENTION	Repairing street letter boxes do	60 58
	Locksmith's work do do do	12 25 8 00
A. HunterJ. R. Smith	do do	14 10
W. H. Thorne & Co	Towels, brooms, &c.	6 88
G. S. DeForest	Brooms, matches, &c.	6 34
G Hutchinson	Attendance on clock, P. O., St. John	6:00
H. W. Barker		8 35
E Chanteloup	Stamping machine rollers do	4 80
J. H. Pullen	Painter's work do	3 00
Pritchard & Andrews	Money order pay stamp for P. O., Chatham	1 00
do	Money order pay stamp and pad for P. O., St. Martin's	1 50
R. Miller	Making and erecting mail catching post at Eel River Crossing	10 00
Truro Foundry and Ma-	Street letter box for Salisbury Station	7 00
	Total	\$3,965 93

WILLIAM WHITE,

Deputy Postmaster-General.

PROVINCE OF MANITOBA, &c.

DETAIL of all payments in discharge of Tradesmen's Bills for articles supplied for the service of the Post Office Department in Manitoba and the North-West Territories, made within the Year ended 30th June, 1889.

Name.	Particulars.			Particulars. Amo		Particulars.		Amour	nt.
					8	ets			
B. A. Bank Note Co	Engraving and printing postage s	stamps, p	ost cards, &c.	for the	*	000			
	Post Office Department in Ma	nitoba &	C		2,898	50			
Pritchard & Andrews	Omce stamps and seals for the P.	O. Depar	tment in Manito	oba, &c.	398				
αο	Office scales and weights	do	do		246				
L. G. Pratt		do	do		2	50			
Maynard, Harris & Co	Letter Carriers' uniform materials		do		81	00			
Rosamond Woolen Co		do	do		78	66			
W. Cummings, Sons & Co	do do	do	do		30	96			
Paton Manufacturing Co.		do	do		20	23			
S. & H. Borbridge	do chamois vests	do	do		24	00			
do	L GO DOOLS .	- do	do		84	50			
R. J. Deviln	Re-covering Letter Carriers' caps	do	do		35	41			
C. Gagne & Co	Making Letter Carriers' uniforms		do		20	50			
	Letter Carriers' waist belts	do	do		9	75			
T. Force	do boots	do	do		4	50			
I Character & Northwood.	Railway Mail Clerks' boxes	do	do		10	60			
J. Stevenson	Dominion ensigns	do	do		9	82			
I I Dl.:. & C.	Erecting and painting street letter	boxes for		peg	66	75			
J. L. Blair & Co	Blankets and rug		do		8	00			
Wright & Co	waterproof blanket		do		6	-00			
Mulholland Bros			do		4	20			
H. Hodges	Soap, matches, &c.		· do		3	95			
R. D. Richardson	Daskets		do		3	-00			
J. H. Ashdown,	Turpentine, oil, &c		. <u></u>		0	75			
D. L. Cameron & Co	Making Letter Carriers' uniforms	for P. O.,	Winnipeg		306	00			
n. o. Devim	Letter Carriers' fur caps, collare	ttes, mod	ecasins, &c., for	P. O.,					
W F Tonnon	Winnipeg.				76	50			
H P Dogo & Co	Letter Carriers' boots for P. O., W	innipeg.	<u> </u>		36	60			
P S Montgomory	Measuring Letter Carriers for unif Letter Carriers' waist belts	orms, for		g	2	00			
A. Schmidt	Letter Carriers waist belts		do		1	50			
I H Aghdown	Locksmith's work		do		61	65			
J. H. Ashdown Wright Bros	Tardware, prooms, &c.		do		28	18			
Mitchell Drug Co	Mothylated animits divinfe to the	0	do			50			
G. Andrew	Methylated spirits, disinfectants,	xc.	do			20			
o. Zinarew	Repairing clocks		do		3	00			
	m			-					

WILLIAM WHITE,

Deputy Postmaster-General.

PROVINCE OF BRITISH COLUMBIA.

DETAIL of all payments in discharge of Tradesmen's Bills, for articles supplied for the service of the Post Office Department, in British Columbia, made within the Year ended 30th June, 1889.

B. A. Bank Note Co Pritchard & Andrews do	\$ cts ,142 72 ,152 24 ,50 51 ,75 00 ,25 31 ,24 58 ,9 68 ,6 32 ,20 50 ,18 00 ,4 50 ,13 13 ,3 00 ,0 32 ,8 5 ,9 32 ,8 5 ,9 32 ,8 5 ,9 32 ,8 5 ,9 32 ,8 5 ,9 32 ,8 5 ,9 32 ,9 32 ,9 ,9 32 ,9 3
Pritchard & Andrews do	152 24 50 51 75 00 25 31 24 58 9 68 6 32 20 50 18 00 4 50 4 50 13 13 3 00 0 85
Pritchard & Andrews do Office stamps and seals for the P. O. Department, in British Columbia Office scales and weights do d	152 24 50 51 75 00 25 31 24 58 9 68 6 32 20 50 18 00 4 50 4 50 13 13 3 00 0 85
C. Wilson & Son	50 51 75 00 25 31 24 58 9 68 6 32 20 50 18 00 4 50 4 50 13 13 3 00 0 85
C. Wilson & Son do Maynard, Harris & Co. Rosamond Woollen Co. do do do do do C. W. Cummings, Sons & Co. Paton Manufacturing Co. C. Gagne & Co. Making Letter Carriers' uniforms do	75 00 25 31 24 58 9 68 6 32 20 50 18 00 4 50 4 50 13 13 3 00 0 85
Maynard, Harris & Co. Rosamond Woollen Co. W. Cummings, Sons & Co. Gagne & Co. Making Letter Carriers' uniform materials do	25 31 24 58 9 68 6 32 20 50 18 00 4 50 4 50 13 13 3 00 0 85
Rosamond Woollen Co. W. Cummings, Sons & Co. Paton Manufacturing Co. C. Gagne & Co. S. & H. Borbridge T. Force. Go Go R. J. Devlin Re-covering Letter Carriers' caps Go McKinley & Northwood F. W. Hart. McKillican & Anderson. W. Heathorn M. Heathorn M. Heathorn J. Sears Painting and putting up street letter boxes for P. O. I., Victoria. Measuring Letter Carriers for uniforms Go Altering Go McKinley & Northwood Altering Go McKinley & Northwood Altering Go McKinley & Northwood Altering McKinley & Northwood McKinley & McLetter Carriers Railway Mail Clerks' boxes do McKinley & Northwood McKinley & Northwood McKinley & Northwood McKinley & McLetter Carriers Corving	9 68 6 32 20 50 18 00 4 50 4 50 13 13 3 00 0 85
Paton Manufacturing Co. C. Gagne & Co. Making Letter Carriers' uniforms do B. & H. Borbridge Letter Carriers' boots Determined to the Carriers' caps do Cook C. Gagne & Co. Making Letter Carriers' uniforms do Cook D. Cook D	6 32 20 50 18 00 4 50 4 50 13 13 3 00 0 85
C. Gagne & Co. Making Letter Carriers' uniforms do	20 50 18 00 4 50 4 50 13 13 3 00 0 85
S. & H. Borbridge Letter Carriers' boots do do do do do R. Force do do do do do do R. S. Devlin Re-covering Letter Carriers' caps do do do R. S. Montgomery Letter Carriers' waist belts do do McKinley & Northwood Oil for Letter Carriers' lamps do do F. W. Hart Office furniture for P. O. I., Victoria W. Heathorn Letter Carriers' boots do Altering do uniforms do Altering do uniforms do J. Sears Painting and putting up street letter boxes for P. O. I., Victoria W. Hibben & Co Brooms, soap, &c. McKinley & Northwood Painting and lettering Railway Mail Clerks' boxes do Soap, matches, &c., for P. O., New Westminster W. J. Brewer Making and erecting street letter box posts for P. O., Vancouver Screen for P. O., Vancouver Removing street letter box for P. O., Victoria W. Cummings, Sons & Co Letter Carriers' uniform materials for P. O., Victoria C. Gagné & Co Making Letter Carriers' uniforms do J. T. Burrows Altering do do Letter Carriers' uniforms do Letter Carriers' unif	18 00 4 50 4 50 13 13 3 00 0 85
T. Force. do do do do do do R. Cook. do do do do do R. J. Devlin. Re-covering Letter Carriers' caps do do do McKinley & Northwood. Clif for Letter Carriers' lamps do do do Gr. W. Hart. Office furniture for P. O. I., Victoria. McKillican & Anderson. W. Heathorn. Letter Carriers' boots do Measuring Letter Carriers for uniforms do Altering do uniforms do Dainting indicators, for street letter boxes do Soap, matches, &c., for P. O., New Westminster W. J. Brewer. Making and erecting street letter box posts for P. O., Vancouver. Galbraith & Campion Screen for P. O., Vancouver. Removing street letter box for P. O., Victoria. Letter Carriers' uniforms do Soap, matches, &c., for P. O., Vancouver. Letter Carriers' uniform materials for P. O., Victoria. Letter Carriers' uniform materials for P. O., Victoria. Letter Carriers' uniform materials for P. O., Victoria. Letter Carriers' uniforms do J. T. Burrows Altering do do do Letter Carriers' uniforms do Letter Carriers' u	4 50 4 50 13 13 3 00 0 85
P. Cook R. J. Devlin. Re-covering Letter Carriers' caps do Detter Carriers' waist belts do Oil for Letter Carriers' lamps do Office furniture for P. O. I., Victoria. W. Heathorn Letter Carriers' boots do Altering and putting up street letter boxes for P. O. I., Victoria. Weasuring Letter Carriers for uniforms do Taylor & Mellon Altering do uniforms do Office furniture for P. O. I., Victoria. W. Heathorn Altering do uniforms do Definiting indicators, for street letter boxes do Soap, &c. Office furniture for P. O., New Westminster W. Heathorn Altering do Uniforms do Definiting and lettering Railway Mail Clerks' boxes do Soap, matches, &c., for P. O., New Westminster W. J. Brewer. Making and erecting street letter box posts for P. O., Vancouver. Galbraith & Campion Screen for P. O., Vancouver. W. Cummings, Sons & Co. C. Gagné & Co. Making Letter Carriers' uniform materials for P. O., Victoria Definition of the document of the control of th	4 50 13 13 3 00 0 85
R. J. Devlin. Re-covering Letter Carriers' caps do do R. S. Montgomery Letter Carriers' waist belts do do McKinley & Northwood Oil for Letter Carriers' lamps do do Office furniture for P. O. I., Victoria McKillican & Anderson. Painting and putting up street letter boxes for P. O. I., Victoria A. Gregg & Son. Measuring Letter Carriers' boots do Altering do uniforms do Altering do uniforms do Dainting indicators, for street letter boxes do Painting and lettering Railway Mail Clerks' boxes do Painting and lettering Railway Mail Clerks' boxes do Soap, matches, &c., for P. O., New Westminster W. J. Brewer. Making and erecting street letter box posts for P. O., Vancouver Galbraith & Campion Removing street letter box for P. O., Vancouver Screen for P. O., Vancouver Screen for P. O., Vancouver Screen for P. O., Vancouver Making Letter Carriers' uniform materials for P. O., Victoria do D. T. Burrows Altering do do Letter Carriers' uniforms do Letter Carriers' uniform	13 13 3 00 0 85
R. S. Montgomery McKinley & Northwood. F. W. Hart McKillican & Anderson W. Heathorn A. Gregg & Son Measuring Letter Carriers for uniforms do altering do uniforms do altering do uniforms do altering do uniforms. J. Sears Painting and putting up street letter boxes for P. O. I., Victoria Letter Carriers boots Measuring Letter Carriers for uniforms do altering do uniforms do altering do uniforms do altering do uniforms. J. Sears Painting and putting up street letter boxes for P. O. I., Victoria Letter Carriers for uniforms do altering do uniforms do altering do uniforms. McKinley & Northwood. W. & G. Wolfenden W. J. Brewer Making and erecting street letter box posts for P. O., Vancouver. Galbraith & Campion Screen for P. O., Vancouver. Removing street letter box for P. O., Vancouver. Letter Carriers' uniform materials for P. O., Victoria. McKinley & Northwood. Making Letter Carriers' uniforms do do do Letter Carriers' uniforms do Letter Carriers' uniforms do do Letter Carriers' uniforms do do Letter Carriers' uniforms do Letter Car	3 00 0 85
McKinley & Northwood. Oil for Letter Carriers' lamps do do Office furniture for P. O. I., Victoria. McKillican & Anderson. W. Heathorn A. Gregg & Son Altering do uniforms do J. Sears T. N. Hibben & Co Brooms, soap, &c. McKinley & Northwood. W. & G. Wolfenden W. J. Brewer Making and erecting street letter boxes do Making street letter boxes do McKinley & Northwood. W. & G. Wolfenden W. J. Brewer Making and erecting street letter box posts for P. O., Vancouver. Galbraith & Campion Kring Removing street letter box for P. O., Vancouver. W. Cummings, Sons & Co. C. Gagné & Co Making Letter Carriers' uniform materials for P. O., Victoria. Letter Carriers' uniforms do J. T. Burrows Altering do do Letter Carriers' uniforms	0 85
F. W. Hart Office furniture for P. O. I., Victoria McKillican & Anderson. Painting and putting up street letter boxes for P. O. I., Victoria A. Gregg & Son A. Gregg & Son Altering do uniforms do J. Sears. Painting indicators, for street letter boxes do Brooms, soap, &c. McKinley & Northwood. W. & G. Wolfenden Soap, matches, &c., for P. O., New Westminster W. J. Brewer Making and erecting street letter box posts for P. O., Vancouver. Galbraith & Campion. A. King Removing street letter box for P. O., Vancouver W. Cummings, Sons & Co. C. Gagné & Co Making Letter Carriers' uniform materials for P. O., Victoria. C. Gagné & Co Making Letter Carriers' uniforms do J. T. Burrows. Altering do Letter Carriers' boots	
McKillican & Anderson. W. Heathorn. Letter Carriers' boots A. Gregg & Son. Measuring Letter Carriers for uniforms do Altering Displayed Anderson. Messing Letter Carriers for uniforms Altering Displayed Disp	
W. Heathorn Letter Carriers' boots do A Gregg & Son Measuring Letter Carriers for uniforms do Altering do uniforms do Altering do uniforms do T. N. Hibben & Co Brooms, soap, &c. do McKinley & Northwood. Painting and lettering Railway Mail Clerks' boxes do W. & G. Wolfenden Soap, matches, &c., for P. O., New Westminster W. J. Brewer Making and erecting street letter box posts for P. O., Vancouver Galbraith & Campion Screen for P. O., Vancouver W. Cummings, Sons & Co Letter Carriers' uniform materials for P. O., Victoria C. Gagné & Co Making Letter Carriers' uniforms do J. T. Burrows Altering do do do	30 00
A. Gregg & Son Measuring Letter Carriers for uniforms do Taylor & Mellon Altering do uniforms do Painting indicators, for street letter boxes do T. N. Hibben & Co Brooms, soap, &c. do McKinley & Northwood. Painting and lettering Railway Mail Clerks' boxes do Soap, matches, &c., for P. O., New Westminster W. J. Brewer Making and erecting street letter box posts for P. O., Vancouver A. King Removing street letter box for P. O., Vancouver W. Cummings, Sons & Co. Letter Carriers' uniform materials for P. O., Victoria C. Gagné & Co Making Letter Carriers' uniforms do J. T. Burrows Altering do do Letter Carriers' boots do	20 00
Taylor & Mellon Altering do uniforms do D. Sears	2 00
J. Sears	0 75
T. N. Hibben & Co Brooms, soap, &c	9 00
McKinley & Northwood. W. & G. Wolfenden. Soap, matches, &c., for P. O., New Westminster Making and erecting street letter box posts for P. O., Vancouver. Screen for P. O., Vancouver. A. King. Removing street letter box for P. O., Vancouver. W. Cummings, Sons & Co. C. Gagné & Co. Making Letter Carriers' uniform materials for P. O., Victoria. Making Letter Carriers' uniforms Altering do D. Cook Letter Carriers' boots do Letter Carriers' boots	3 00
W. & G. Wolfenden. W. J. Brewer. Making and erecting street letter box posts for P. O., Vancouver. Galbraith & Campion A. King. Removing street letter box for P. O., Vancouver. W. Cummings, Sons & Co. C. Gagné & Co. Making Letter Carriers' uniform materials for P. O., Victoria. J. T. Burrows Altering do do P. Cook Letter Carriers' boots	3 00
W. J. Brewer. Making and erecting street letter box posts for P. O., Vancouver. Galbraith & Campion Screen for P. O., Vancouver. Removing street letter box for P. O., Vancouver. W. Cummings, Sons & Co. Letter Carriers' uniform materials for P. O., Victoria Gagné & Co. Making Letter Carriers' uniforms do J. T. Burrows Altering do do Letter Carriers' boots do	1 00
Galbraith & Campion . Screen for P. O., Vancouver	20 00
W. Cummings, Sons & Co. Letter Carriers' uniform materials for P. O., Victoria. C. Gagné & Co. Making Letter Carriers' uniforms do J. T. Burrows	6 00
W. Cummings, Sons & Co. Letter Carriers' uniform materials for P. O., Victoria. C. Gagné & Co. Making Letter Carriers' uniforms do J. T. Burrows Altering do do P. Cook Letter Carriers' boots	1 50
J. T. Burrows Altering do do P. Cook Letter Carriers' boots do	39 00
P. Cook Letter Carriers' boots do	54 00
	1 50
W E Tanner do	22 50
	9 76
E. B. Marvin & Co Twine do	62 50
J. Barnsley & Co Locksmith's work do do do do do	11 75 3 00
III Tipoliai III III III III III III III III III	7 75
J. Sehl	5 37
H. Gribble Feather dusters do	
D. Spencer Towels and soap do	
E. G. Prior & Co Hardware do	5 00
J. StreetPutting up street letter box at Duncan Station	5 00 1 00
Total	5 00

WILLIAM WHITE,

Deputy Postmaster-General.

PROVINCE OF PRINCE EDWARD ISLAND.

DETAIL of all payments in discharge of Tradesmen's Bills, for articles supplied for the service of the Post Office Department, in Prince Edward Island, made within the Year ended 30th June, 1889.

Name.	Particulars.	Amount.
		\$ ets.
·	Engraving and printing postage stamps, post cards, &c., for the Post Office Department in Prince Edward Island	585 39
	Edward Island. Office scales and weights for the P. O. Department in P. E. Island.	203 71 43 98
C. Wilson & Son	do do Bedding, towels, &c., for P. O., Charlottetown	48 75 10 52
	Brooms, soap and matches do	3 92 0 48
	Total	\$896 75

WILLIAM WHITE,

Deputy Postmaster-General.

PROVINCE OF ONTARIO.

Detail of all payments by the Post Office Department, for Rents and Taxes in Ontario, made within the Year ended 30th June, 1889.

Name.	Particulars.	Amount.
Corporation of Prescott. Grand Trunk Ry. Co	Rent of Post Office, Prescott (1 year to 31st August, 1888)	\$ cts. 325 00 50 00 \$375 00

PROVINCE OF QUEBEC.

Detail of all payments by the Post Office Department, for Rents and Taxes in Quebec, made within the Year ended 30th June, 1889.

Name.		Particulars.					
Montreal City and District Savings Bank W. McGowan Montreal City and District Savings Bank R. S. Cooke Grand Trunk Ry. Co	Rent of do	Northern Western Post Office V Mail room as	do do Valleyfield (1 t Bonaventus vember, 1888	do do year to 31st M re Station, Mo	year to 30th April, 1889) do do 1arch, 1889) ntreal (11 months to	\$ cts. 250 00 250 00 250 00 160 00 45 83 \$955 83	

PROVINCE OF BRITISH COLUMBIA.

Detail of all payments by the Post Office Department, for Rents and Taxes in British Columbia, made within the Year ended 30th June, 1889.

Name.	Particulars.	Amount.
L. A. Hamilton, Agent J. M. Browning do	Rent of Post Office, Vancouver (6 months to 30th June, 1888) do do (9 do 31st March, 1889)	\$ ets. 180 00 270 00 \$450 00

W. H. SMITHSON,
Accountant.

WILLIAM WHITE,

Deputy Postmaster-General.

PROVINCE OF ONTARIO.

DETAIL of all payments, by the Post Office Department, for Stationery, Printing and Advertising, in Ontario, made within the Year ended 30th June, 1889.

Name.		Par	ticulars.		Amour	nt.
					\$	ets.
Queen's Printer and Sta-		1 01 11	D 0 D			
tionery Office Ottawa "Canadian Mil-	Printing and	Stationery for the	P. O. Depa	rtment in Ontario	30,336	47
itia Gazette"	Advertising	Money Orders	do	do	99	00
Ottawa "Canadian Min-			,	3		
ing Review"	do Advertising	do for mail tenders, Ca	do mada and I	do United Kingdom		60 80
Kingston "News" London "Free Press" Ottawa "Citizen"	Advertising	tenders, for Letter	r Carriers's	upplies		20
London "Free Press"	do	do		do		33
do "Le Canada"	do do	do do		do		33 33
Stratford 66 Timos "	do	do		do		60
Toronto "Empire" do "Sentinel"	do	do		do		80
do "Sentinei"	do do	do do		do		50 20
			ffice notices	, &c	100	
Belleville	do	do				50
Bradford	do do	do do			50 150	00
Brockville	do	do				50
Chatham		do			50	00
GaltGuelph	do do	do do				00
Hamilton		do			113	
Kingston	do	do			161	40
Lindsay	do do	do do			50 177	00
Ottawa		do			640	
Pembroke	do	do			52	00
Peterboro' Port Hope	do do	do do			187	
Richmond Hill	do	do				17
St. Thomas	do	do			25	00
SarniaStratford	do do	do do				00
Toronto	do	do			79 230	00
Wallaceburg	do	do			75	00
Alexandria 'Glangarrian'	Advertising	for mail tenders &				00
Woodstock	do	do				40 78
Amprior "Chronicle"	do	do			31	36
Arnprior "Chronicle" Brantford "Courier" do "Telegram"	do do	do do		••••••••••••	$\frac{11}{9}$	34
Brockville "Times"	do	do			6	
Carleton Place "Central		a.				
Canadian" Chatham "Planet"	do do	do do				06 48
Clinton "News-Record".	do	do				29
Cornwall "Standard"	do	do			6	00
Eganville "Enterprise". Ingersoll "Tribune"	do do	do do				40 20
Kingston "News" Leamington "Post"	do	do				20
Learnington "Post"	do	do			5	00
Listowel "Standard" London "Catholic Re-	do	do	• • • • • • • • • • • • • • • • • • • •		4	20
cord "	do	do			10	50
London "Farmer's Ad.		a.				
vocate"	do do	do do				00 24
2011,011 2100 21000 111		189			0	41

Detail of all payments, by the Post Office Department, for Stationery, Printing and Advertising, in Ontario, made within the Year ended 30th June, 1889—Concluded.

Corignal "Advertiser" Advertising for mail tenders, &c. 13 Iadac "N. H. Review" do do do do do do do do	Name.	Particulars.				
W Hamburg Ha					\$	
W Hamburg Ha	'Orignal "Advertiser".	Advertising fo	r mail tenders,	&c	13	
W Hamburg Ha	ladoc "N. H. Review".	do	do		4	
W Hamburg Ha	forrisburg "Courier"	do	do		10	
pendent	apanee "Beaver"	do	do		5	
forwood "Register" do do do do do do do d		do	do		9	
ttawa "Canadian Militia Gazette"	orgroad "Register"				3	
titis Gazette"	ttawa "Canadian Mil-	do	40			
ttawa "Citizen" do do "Journal" do do "Journal	itia Gazette"	do	do		20	
do	ttawa "Citizen "	do	do		18	
do	do "Journal"					
embroke "Standard"	do "Le Canada"					
Coton Gazette Coton Gazette Coton Gazette Coton Gazette Goton Ga		do				
Coton Gazette Coton Gazette Coton Gazette Coton Gazette Coton Gazette Goton Ga	erth "Expositor"	do	do		29	
Coton Gazette Coton Gazette Coton Gazette Coton Gazette Goton Ga	eterboro" Canada Lum-	3.	J.,		4	
Coton Gazette Coton Gazette Coton Gazette Coton Gazette Coton Gazette Goton Ga	berman"	do				
Coton Gazette Coton Gazette Coton Gazette Coton Gazette Goton Ga	eterboro' '' Review ''	do				
Ort Dover "Maple Leaf" do do do do do do do d	do Times	do				
do do do do do mece "Br. Canadian" do do do do mece "Br. Canadian" do do do do mith's Falls "Independent" do do do do do mith's Falls "News" do do do do do do do d	out Dovon "Monle Leaf"					
do do do do do do do do	respect "Messenger"					
doctor d	enfrew "Journal".					
Arnia "Canadian" do do do do do do do do	dgetown "Standard"					
mece "Br. Canadian" do do do do do do do d	rnia "Canadian"				9	
mith's Falls "News" do do 5 mith's Falls "News" do do 10 mith's Falls "News" do do 4 mith's Falls "News" do do 4 mith's Falls "News" do do 4 moronto "Canada Presbyterian" do do 8 byterian" do do 5 oronto "Canadian Baptist" do do 5 oronto "Canadian Grocer" do do 5 oronto "Canadian Grocer" do do 5 oronto "Canadian Grocer" do do 3 oronto "Christian Gardian" do do 3 oronto "Christian Gardian" do do 8 oronto "Empire" do do 4 oronto "Evangelical Churchman" do do 4 oronto "Fish Canadian" do do do 4 oronto "Fish Canadian" do do do 4	mcoe "Br. Canadian".		do		3	
ent" do	nith's Falls "Independ-					
irling "News-Argus". do do do 4 rathroy "Dispatch". do do do 4 roroto "Canada Pres- byterian". do do do 5 roroto "Canadian Bap- tist". do do do 5 roroto "Canadian Gro- cer '. do do do 5 roroto "Canadian Gro- cer '. do do do 5 roroto "Canadian Gro- cer '. do do do 5 roroto "Christian Guardian" do do do 8 roroto "Christian Guardian" do do do 8 roroto "Do minion Churchman". do do do do 4 roroto "Empire". do do do 4 roroto "Evangelical Churchman". do do do 4 roroto "Evening Tele- gram". do do do 12 roroto "Fish Canadian" do do do 12 roroto "Frish Canadian" do do do 14 do "Presbyterian News". do do do 14 roroto "Sentinel". do do do 14 roroto "Sentinel". do do do 14 roroto "Sentinel". do do do 15 roroto "Sentinel". do do do 16 ru "World". do do do 17 rail rural ru	ent "					
byterian	nith's Falls "News"					
byterian	irling "News-Argus"					
byterian	rathroy "Dispatch"	do	ao		4	
Sports	pronto "Canada Pres-	do	do		0	
tist"	byterian "	ao	do		0	
Description Canadian Grocer Canadian Groce	bronto "Canadian Dap-	do	do		5	
do do do Soronto Canadian Soronto Christian Guardian do do do do Soronto Christian Guardian do do do do Soronto Christian do do do do do do do d	monto "Canadian Gro-	do.	ao			
coronto "Canadian Sportsman" do do do 10 coronto "Christian Guardian" do do 8 coronto "Do minion Churchman" do do 8 coronto "Evangelical Churchman" do do 18 Churchman" do do 4 coronto "Evening Telegram" do do 12 coronto "Irish Canadian" do do 14 do "Presbyterian do do 14 News" do do 6 oronto "Sentinel" do do 6 ""World" do do 6 Valkerton "Herald" do do 4 Vindsor "Clarion" do do 6	cer,	do	do		5	
Sportsman"	oronto "Canadian					
oronto "Christian Guardian" do do 8 oronto "Dominion Churchman" do do 8 oronto "Empire" do do 18 do "Evangelical Churchman" do do 4 oronto "Evening Telegram" do do 12 oronto "Irish Canadian" do do 8 do "News" do do 14 do "Presbyterian News" do do 9 oronto "Sentinel" do do 6 " "World" do do 14 Valkerton "Herald" do do 4 Vindsor "Clarion" do do 6	Chantaman "	do	do		10	
Guardian	oronto "Christian					
Churchman" do do 8 oronto "Empire" do do 18 do "Evangelical do do 4 Churchman" do do 4 oronto "Evening Telegram" do do 3 gram" do do 8 do "News" do do 14 do "Presbyterian News" do do 9 oronto "Sentinel" do do 6 " "World" do do 14 Valkerton "Herald" do do 4 Vindsor "Clarion" do do 6	Guardian "	do	do		8	
Dronto "Empire"	oronto "Dominion		,			
do	Churchman "					
Churchman" do do 4 oronto "Evening Telegram" do do 12 oronto "Irish Canadian" do do 8 do "News" do do 14 do "Presbyterian News" do do 9 oronto "Sentinel" do do 6 " "World" do do 14 Yalkerton "Herald" do do 4 indsor "Clarion" do do 6	oronto "Empire"	do	do	• • • • • • • • • • • • • • • • • • • •	10	
Departs Evening Telegram Graph	do "Evangelical	do	do		A	
Dronto Trisin Canadian do do do do do do do d	Churchman "	do	ao		- 2	
Dronto Trisin Canadian do do do do do do do d	pronto Evening Tele-	do	do		12	
do "News" do do do 14	gram					
do "Presbyterian News" do oronto "Sentinel" do do do do do 4alkerton "Herald" do findspr "Clarion" do do do 6 6	do "News"					
News"	do "Preshyterian					
" "World" do do 14 'alkerton "Herald" do do 4 'indsor "Clarion" do do 6	News"	do	do			
" "World" do do 14 'alkerton "Herald" do do 4 'indsor "Clarion" do do 6	oronto "Sentinel"					
Talkerton "Herald" do do do do Gindsor "Clarion" do do do Gindsor "Clarion" do do do Gindsor	" "World "					
	alkerton "Herald"					
do "Review" do do	Vindsor "Clarion"					
	do "Review"	do	do		5	

W. H. SMITHSON,
Accountant.

WILLIAM WHITE,

Deputy Postmaster-General.

PROVINCE OF QUEBEC.

DETAIL of all payments by the Post Office Department, for Stationery, Printing and Advertising in Quebec, made within the Year ended 30th June, 1889.

Name.		P	articulars.			Amount.	
						\$	cts.
Queen's Printer and Station-	D.:	- 4.º C	41. D O D		in Ourhand	11 045	10
ery Office	Printing and st	ationery for	the P. O. Depa	rtment	in Quebec	11,945	48
Aylmer "Times"	Advertising for	tenders for	Letter Carriers	suppn	es	44	40
tawa"	do		do			9.1	80
tawa" Hull "Weekly Dispatch"	do		do		• • • • • • • • • • • • • • • • • • • •		22
Montreal "Gazette"	do		do	,	• • • • • • • • • • • • • • • • • • • •		62
do "La Minerve"	do		do	•			33
do "Le Monde"	do		do				33
Quebec "Canadien"	do		do				62
do "Courrier du Canada"	do		do			48	62
do "Morning Chronicle"	do		do				76
Shawville "Equity"	do		do			12	60
Aylmer	Advertising tim	ie-tables, Po	st Office notice	s, &c		25	00
Chicoutimi	do	· ·	do			11	00
Fraserville	do		do			9	00
Hull	do		do			87	50
Lévis	do		do				00
Montreal	do		do			626	
Quebec	do		do			653	
Richmond	do		do				20
Ste. Anne de la Pocatière	do		do				94
Sherbrooke	do		do				77
Three Rivers	do		bo				20
Aylmer "Times"	Advertising for	mail_tender					44
Bryson "Equity"	do	do	******			4	50
Hull "La Vallée de l'Ot-	a.	а.				0	10
tawa"	do	do			******		10
Hull "Weekly Dispatch	do	do	******			1,00	80
Montreal "Gazette" do "La Minerve"	do	do					60
	do	do					70
do "La Presse" do "Le Monde".,	do do	do					60
do "Star"	do	d o					80
Three Rivers "Journal"	do	do					20
Timee torvers Journal	uo	uo				21	20

WILLIAM WHITE,

Deputy Postmaster-General.

PROVINCE OF NOVA SCOTIA.

DETAIL of all payments by the Post Office Department for Stationery, Printing and Advertising, in Nova Scotia, made within the Year ended 30th June, 1889.

Name.		Par	ticulars.		Amoun
queen's Printer and Station- ery Office	Printing and Sta	tionomy for th	oo P. O. Dont in	Nova Santia	\$ ct
Ialifax "Evening Mail"	Advertising for t	onders for T	otton Cormons, an	innling	35
do "Morning Herald".	do	do	de de la contre de de la contre		35
orth Sydney "Herald"	do	do	de		19
	Ink and mucilage				21
do	do	Postmas			45
	Advertising time			0	197
	Advertising for i				27
innapolis "Spectator"	do	do	œc		39
ntigonishe "Casket"	do	do	•••••	* * * * * * * * * * * * * * * * * * * *	27
ridgetown "Monitor"	do	do			46
aledonia "Gold Hunter"	do	do			3
Digby "Courier"	do	do			8
Ialifax "Evening Mail"	do	do	*		208
do "Morning Herald".	do	do	*************		220
do "Presbyterian Wit-	ao	ao			
	do	do			60
ness L'entville "Western Chroni-			***************************************		
cle	do	do			14
ew Glasgow "Enterprise".	do	do			44
orth Sydney "Herald"	do	do			93
arrsboro' "Leader"	do	do			2
ictou "Colonial Standard".	· do	do			47
pringhill "Independent"	do	do			9
do "Record"	do	do			4
tellarton "Trades Journal"	do	do			22
ydney "Advocate"	do	do			80
indsor "Clarion"	do	do			31
do "Journal"	do	do			31
do "Tribune"	do	do			4
armouth "Times"	do	do			294

WILLIAM WHITE,

Deputy Postmaster-General.

PROVINCE OF NEW BRUNSWICK.

DETAIL of all payments by the Post Office Department for Stationery, Printing and Advertising in New Brunswick, made within the Year ended 30th June, 1889.

Name.		Par	ticulars.	Amour	nt.
				\$	ets.
Queen's Printer and Sta-					
			e P. O. Dept. in New Brunswick.		
St. John "Sun "	Advertising for	tenders for Le	etter Carriers' supplies		33
			tor's Office, St. John		85
do	do	Postm	aster, St. John		90 52
Bathurst	Advertising tin	ne-tables, Post	Office notices, &c	146	
St. John. Sackville			dodo		00
Chatham "World"	A dyonticing for	mail tandora	&c	146	
Fredericton "Capital"	do	do	&C		10
Fredericton "Maritime Far-	ao	uo		00	10
mer "	do.	do:		95	95
Fredericton "Religious In-	uo.	uo	*	30	90
telligencer "	do	do		145	88
Fredericton "Reporter"	do	do			95.
Fredericton "Temperance		ao		02	00.
Journal "	do	do		70	90
Harvey "Observer"	do	do			60
Hillsboro' "Observer,"	do	do			25
Moneton "Times"	do .	do			50
Newcastle "Advocate"	do	do do		63	36
St. Andrew's "Bay Pilot"	do	do		29	76
St. John "Evening Gazette"	do	do		38	75
St. John "Messenger and Vis-					
itor "	do	· do		66	90
St. John "Sun"	do	do		65	74
St. Stephen "St. Croix Cou-					
rier ''	do	do		45	00
Sackville "Chignecto Post".	do	do		27	80
Shediac "Le Moniteur Aca-					
dien "	do	do		21	. 28
Sussex "Record"	do	do			00
Woodstock "Press"	do	do		32	32
		Total		\$4,885	21
		10tal		ф 1 ,000	01

WILLIAM WHITE, Deputy Postmaster-General.

PROVINCE OF MANITOBA, &c.

Detail of all payments by the Post Office Department for Stationery, Printing and Advertising in Manitoba and the North-West Territories, made within the Year ended 30th June, 1889.

Name.		Partic	eulars.	Amount.
Queen's Printer and Station-				\$ cts.
ery Office	Printing and Stat	ioners for the	P. O. Dept. in Manitoba, &c	3,517 82
St. Boniface "Le Manitoba".			ter Carriers' supplies	
Winnipeg "Call"	do	iluers for Lieu	do	57 20
A. Taylor	Inle and musilage	for Ingrestor	's Office, Winnipeg	22 25
do	do	Postmast	er do	23 00
			Office notices, &c	215 00
Winnipeg	Advertising time	cables, rost C	ince notices, &c	
Birtle "Observer"	Adversing for in		C	11 00
Brandon "Mail"	do	do		7
	do	do		17 00
Calgary "Herald"	do	do		10 40
Emerson "International"	do	do	• • • • • • • • • • • • • • • • • • • •	
Fort Qu'Appelle "Vidette"	do	do		30 80
Lethbridge "News"	do	do	• • • • • • • • • • • • • • • • • • • •	47 32
McLeod "Gazette"	do	do		37 80
Minnedosa "Tribune"	do	ďο		
Moosomin "Courier"	do	do		33 88
Morden "Monitor"	do	do		23 00
Neepawa "Register"	do	do		5 40
Portage la Prairie "Review"	do	do		
Qu'Appelle "Progress"	do	do		
Regina "Leader"	do	c do		33 54
St. Boniface "Le Manitoba".	do	do		142 22
Selkirk "Record"	do	do		16 40
Stonewall "News"	do	do		16 60
Winnipeg "Call" do "Emigrant"	do	do		
do "Emigrant"	do	do		79 20
do "Heimskringla"	do	do		41 40
do "Manitoba Colo-				
nist "	do	do		53 95
Winnipeg "Nor'West Far-				
mer "	do	do		35 70
Winnipeg "North-West Re-				
view"	do	đo		. 58 76
Winnipeg "Scandinavian				
Canadian "	do	do		21 00
Winnipeg "Siftings"	do	do		58 20
Transpos Citatings	u.o	do		

WILLIAM WHITE, .
Deputy Postmaster-General.

PROVINCE OF BRITISH COLUMBIA.

DETAIL of all payments by the Post Office Department for Stationery, Printing and Advertising in British Columbia, made within the Year ended 30th June, 1889.

Name.	Particulars.					nt.
0 1 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1					*	ets.
Queen's Printer and Station-	Duintin and de		I D. I OW. D.	4 . 4		
ery Office	British Columb	tionery for	the Post Office Depa	artment in	1 000	91
Victoria "Colonist."	Admenticing for to	na f T	-44 C		1,220	
T N Hibban & Co	Advertising for te	enders for Le	tter Carriers supplies			75
T. N. Hibben & Co						
			ster, Victoria			50
Vancouver		tables, Post				80
Victoria			_ do			40
Kamloops "Sentinel"	Advertising for m	an tenders,	&c			90
Nanaimo "Free Press"	do	do			7	00
New Westminster "British						
Columbian "	do	do				88
Vancouver "Herald"	do	do			8	00
Vancouver "News-Adver-						
tiser"	do	do			8	00
Victoria "Colonist"	do	do			13	80
Victoria "Standard"	do	do			13	20
						_
		Total			\$1,527	44

WILLIAM WHITE,

Deputy Postmaster-General.

W. H. SMITHSON,
Accountant.

PROVINCE OF PRINCE EDWARD ISLAND.

DETAIL of all payments by the Post Office Department for Stationery, Printing and Advertising in Prince Edward Island, made within the Year ended 30th June, 1889.

Name.	Particulars.	Amount.
T. L. Chappelle Charlottetown do "Examiner" do "Herald"	Printing and stationery for the Post Office Department in Prince Edward Island. Ink for Postmaster, Charlottetown. Advertising time-tables, Post Office notices, &c	\$ cts. 601 83 9 55 96 00 7 60 7 00
Summerside "Journal"	do do	24 15 \$746 13

WILLIAM WHITE,

Deputy Postmaster-General.

PROVINCE OF ONTARIO.

DETAIL of all payments for Miscellaneous Disbursements on account of the Post Office Department, in Ontario, made within the year ended 30th June, 1889.

Name.	Particulars.				
				\$ cts.	
O. Spry, P.O.I			ector, Barrie	60 35	
G. E. Griffin, P.O.I.	do do	do	Kingston	19 82 61 59	
R. W. Barker, P. O. I C. P. French, P.O.I	do	do do	London Ottawa	298 12	
H. G. Hopkirk, P.O.I.	do	do	Stratford	26 80	
H. G. Hopkirk, P.O.I M. Sweetnam, P.O.I	do	do	Toronto	169 60	
J. H. Meacham, P.M	do	Postmaster,	Belleville	141 75 31 33	
H. N. Case, P.M	do do	do do	Hamilton Kingston	17 93	
R. J. C. Dawson, P.M.	do	do	London	61 09	
J. A. Gouin, P.M	do	do	Ottawa	593 30	
C. C. Patteson, P.M	do	do	Toronto	391 36 82 44	
A. Wigle, P. M	do Freight paid upon	do Letter Carriers' un	Windsoriform materials, &c	57 35	
C. P. Telegraph Co	Telegrams to and	from Chief Post (Office Inspector	13 76	
. N. W. Telegraph Co.	do	do		22 94	
do	do	Post Office I	nspector, Barrie	22 67	
G. P. Telegraph Co G. N. W. Telegraph Co.	do do	do do	Kingston do	17 14 31 63	
do	do	do	London	37 53	
C. P. Telegraph Co	do	do	Ottawa	14 83	
J. N. W. Telegraph Co.	do	do	do	41 89	
C. P. Telegraph Co	do	do	Stratford	10 01 29 98	
J. N. W. Telegraph Co.	do . do	do do	do Toronto	37 92	
C. P. Telegraph Co	do	do	do	65 51	
go	do	Postma	aster, Hamilton	9 18	
do	do	do	London	$\begin{array}{c} 6 & 75 \\ 17 & 95 \end{array}$	
do	do do	do do	Ottawa	35 14	
do	do	do	Whitby	9 72	
Bell Telephone Co	Telephone message	s, Post Office Insp	ector, Barrie	0 85	
do	do	do	Kingston	1 10	
do do	do do	do do	Stratford	7 55 1 15	
			Toronto		
or and	months to 31st	March, 1889)		10,648 31	
Director of the Interna-			(10 11 1 01 1 D 1000)	000 11	
tional Postal Bureau	Proportion of Post	al Union expenses	(12 months to 31st Dec., 1888)	222 11	
ben Telephone Co		at Inspector's On	fice, Barrie (12 months to 31st	25 00	
do	Rent of Telephone	at Inspector's O	ffice, Kingston (12 months to		
	30th June, 1889	9)		35 00	
do			ce, London (12 months to 30th	55 00	
do	Sept., 1889)	at Inspector's Res	sidence, Ottawa (12 months to		
do	30th June, 1889		sidence, Ottawa (12 months to	35 00	
do	Rent of Telephone	at Inspector's Of	fice, Stratford (12 months to		
	31st Oct., 1889)		35 00	
do			ffice, Toronto (12 months to	50 00	
do	30th Sept., 188 Rent of Telephone	at Post Office.	Kingston (12 months to 31st		
	July, 1889)			35 00	
do	Rent of Telephone	at Post Office, Lo	ndon (12 months to 31st Oct.,	20.00	
do	1889)	at Post Office To	ronto (12 months to 31st Aug.,	60 00	
			THE PROPERTY OF THE PROPERTY O		

DETAIL of all payments for Miscellaneous Disbursements on account of the Post Office Department, in Ontario, made within the year ended 30th June, 1889—Continued.

Name.	Particulars.	Amount.
		\$ ets.
London Street Can Ca	Street Can Letter Carrier convice London	400 00
Ottawa do	Street Car Letter Carrier service, London	110 00
Toronto do	do Letter Carrier service. Toronto	2,400 00
G. Yates	To pay for Letter Carriers' ferry tickets, Toronto	9 50
Blackburn & Cov	To pay for Letter Carriers' ferry tickets, Toronto	$\begin{array}{cccc} 22 & 25 \\ 225 & 82 \end{array}$
M. Walsh	do Wilkinson, late P. M. Holbrook	5 50
T. G. Meredith	do B. Millar, prosecuted for false pretences	10 00
do	do H. E. Maitland do do	15 00
Douglas, Douglas & Walker	do Hunter, late P. M. Fargo	5 00
Dominion Police	Detective services in re burglary of P. O., Pembroke	51 14
D. O'Leary, Inspector Dominion Police	do do do	82 45
T. Bell	Detective services in re mail robbery at Prescott	50 00
W. Calverley	convicted of fraud in connection with the mail	5 00
Her Majesty's Stationery	Detective services to be imassing registered letter, 1. O. Whitby	1 00
Office., London, Eng	Alphabetical lists of Money Order Offices in the United Kingdom.	89 24
J. F. O'Brien	Services rendered in search of missing mail from London to Ottawa,	6 00
J. Pringle	on 3rd Dec., 1888	15 00 28 50
do	Allowance while in charge of Post Office, Burlington	60 00
W. Cousins	Expenses in connection with P. O. at Exhibition Grounds, London.	25 50
W. C. Cochran	do do do Ottawa	12 00
G. B. Sweetnam	do do do do Toronto Arrears of salary to 30th June, 1888	$\begin{array}{c} 21 & 60 \\ 2 & 00 \end{array}$
do Harriston	Arrears of forward duty to 30th June, 1889	48 00
do Hillsdale	do do	14 00
do Vivian	Expenses while acting Mail Transfer Agent at Hamilton	16 00 33 00
W. H. Offett	Collecting letters from street letter boxes at Windsor	300 00
P. Reid	do do Gananoque	25 00
T. Hanley	To pay for collecting letters at City depot, and delivering same to	24.00
Postmaster Reneroft	Mail Clerks at outer depot, Kingston	24 00 80 00
do Bennington	do Postage Stamps destroyed by fire	2 75
do Blenheim	do Post Office funds stolen from his office	187 18
do Bothwell do Bridgewater.	do do do do	33 00 3 38
do Bridgewater. do Chesley	do Post Cards destroyed by fire	5 00
do Chesterville.	do Money Order funds stolen from his office	50 00
do Clarke	do do	19 50
do Dacre do Dale	do Postage Stamps destroyed by fire	35 00 9 75
do Embrun	do do do	45 00
do Fort Francis.	do Postage Stamps burned in postal car, en route from Department, and charged to P.M	36 00
do Fort William		90.00
$egin{array}{ccc} West \ do & GardenRiver \end{array}$	do Postage Stamps stolen from his office	36 00 7 50
do Harrowsmith	do Postage Stamps destroyed by inc	30 00
do Hilton	do Post Öffice funds lost in transmission to P.O.I., Kingston	13 50
do Keene	do Post Office funds lost in transmission to Bank	59 75
do L'Amable	do Money Order funds lost in transmission to Bank.	70 00
do Maitland do Martintown.		60 00
TAME OF THE OWN II.	197	

Detail of all payments for Miscellaneous Disbursements on account of the Post Office Department, in Ontario, made within the year ended 30th June, 1889—Concluded.

Name.		Particulars.		Amount.	
				' S ets.	
Postmaster	r, Mt. Brydges	Compensation f	or Post Office funds lost in transmission to Bank	40 00	
do	Norwood	do	Money Order funds stolen from his office	23 96	
do	Orono	do	Post Office funds stolen from his office	87 98	
do	Pembroke	do '.	Post Office funds and Postage Stamps stolen from		
			his office	667 90	
do	Sault Ste.				
	Marie	do	Post Office funds lost in transmission to Bank	417 61	
do	Smith's Falls	do	Post Office funds and Postage Stamps stolen from	419 30	
			his office		
do	Toronto	do	counterfeit note taken at Money Order Office	2 00	
do	Vienna	do	Post Office funds lost in transmission to Bank	675 00	
do	Warkworth	do	do do	290 00	
do	West Hunt-				
	ingdon	do	money paid to late Postmaster through a misun- derstanding	3 00	
do	Whitby	do	Post Office funds and Postage Stamps stolen from his office	396 02	
do	Windsor	do	loss of Postage Stamps through error of late Clerk	8 09	
do	Zimmerman.	do	Postage Stamps destroyed by fire	20 00	
W. Potter		Services as labo	rer, Post Office, Ottawa	365 00	
H. Maillet	ar	do	do do	312 00	
F. Smith.		do	do Toronto	456 25	
W. Benson	ı	do	do do	456 25	
H. L. Bell		do	do do	200 00	
G. Hullett		do	do Windsor	200 00	
			ht Watchman at P.O. Inspector's Office, Ottawa	547 50	
			do Post Office, London	52 00	
H. J. G	rassett, Chief		7 . 1	100 00	
Police	, ,	To pay Night V	Vatchman, Post Office, Toronto.	130 00	
G.T. Raily	way Co	To pay Mail Po	rter at Union Station, Toronto.	187 20 19 00	
	t	Putting up dou	ble windows, &c., Inspector's Office, Ottawa	19 00	
	, Supt. Foreign	D C I C	(1 1 1 1 1 1 1 1 1 1 1 1 1 1 Mm		
Mails		Retund of amou	int claimed to have been enclosed in letter to Mrs.	10 10	
77 T		Jas. Dewe,	Stanhope, Ont., and which failed to be delivered	10 10	
H. Dunba	r	Compensation i	or loss of quarters in Kingston Post Office building,	100 00	
TO MAL	_	While Messe	enger	156 01	
			ses, Ottawa to Stratford	30 25	
				122 10	
T. F. Deot	J. H. Scott do Toronto to Ottawa			35 85	
Cundow San	ISOIL	Creativities for all	Halifax to Ottawaharge of night mails at principal Railway Stations	65 00	
Sundry persons		CTRACUIDES FOR CI	harge of hight mans at principal framway Stations.	00 00	
		To	tal	\$25,096 63	
		10		120,000	

WILLIAM WHITE,

Deputy Postmaster-General.

PROVINCE OF QUEBEC.

DETAIL of all payments for Miscellaneous Disbursements on account of the Post Office Department, in Quebec, made within the year ended 30th June, 1889.

Name. Particulars.					
		\$ ets.			
E F King POI	Incidental expenses, Post Office Inspector, Montreal	44 74			
A. Bolduc, P.O.I.	do do Quebec	207 58			
G. A. Bourgeois, P.O.I.		148 35			
C LaMotho D M	do Postmestow Montreel	916 31			
A. G. Tourangeau, P.M.	Telegrams to and from Post Office Inspector, Montreal	381 99			
C. P. Telegraph Co	Telegrams to and from Post Office Inspector, Montreal	7 23			
G. N. W. Telegraph Co	do do do	22 35			
C. P. Telegraph Co	do do Quebec	1 74			
G. N. W. Telegraph Co	do do	117 50			
C. P. Telegraph Co	do do Three Rivers	5 51			
G. N. W. Telegraph Co.	do do	10 00			
C. P. Telegraph Co G. N. W. Telegraph Co	do Postmaster, Montreal	2 30			
do	do do do	257 03 30 45			
Bell Telephone Co		0 35			
Post Office Savings Bank.	Commissions to Postmasters upon Savings Bank business (12 months,	0 35			
1 ost Office Savings Dank.	to 31st March, 1889)	1,527 42			
Director of the Interna-	TO OLIV LIGHT LINE / LI	1,021 12			
tional Postal Bureau	Proportion of Postal Union expenses (12 months, to 31st Dec., 1888).	84 85			
Bell Telephone Co	Rent of telephones at Inspector's office and residence, Quebec, (12)				
1	months to 30th June, 1889).	80 00			
do	Rent of telephones at Inspector's office and residence, also at Assis-				
	tant Inspector's residence, Three Rivers (12 months, to 30th)				
	September, 1889)	75 00			
do	Rent of telephone at Post Office, and at Bonaventure Depot, Mon-				
	treal, (14 months to 30th Nov., 1889)	80 00			
do	Rent, and expense of removing telephone at Receiving Houses,	104 80			
T NT '1	Montreal (12 months to 30th June, 1889)	184 50			
J. Neilson	Furnishing telephonic reports of railway mail trains to Post Office,	130 00			
Electric Service Co	Montreal (13 months to 31st May, 1889)	14 00			
Electric Service Co	March, 1889)				
A. Bolduc, P. O. I					
22. 201440, 2. 0. 2	Beauce, for appropriating money letters	3 00			
B. Desroche	Expenses as witness in re J. N. Grondin	5 91			
J. P. Chillas, Asst, P.O.I	To pay legal services of L. J. Cannon in connection with mail rob-				
, ,	bery at Arthabaska Station	5 00			
J. Patry	Detective services in connection with mail robbery at Arthabaska				
	Station	48 30			
J. Fahey	Detective services in connection with investigation at Post Office,	150.00			
0 1 0: 35	Montreal Employed by the Postmaster-General on detective services.	150 00			
C. A. Cinq-Mars	To pay detective services in connection with People letters	30 00			
J. S. Hall, jr	To pay detective services in connection with Reade lottery	25 00			
E. J. Hemming H. Abbott, jr		20 00			
11. A.D.D. J	delivering a letter to M. Durocher.	5 00			
A Cullin		0 00			
	who was arrested for stealing money from registered letters	3 00			
W. Lee	Measuring Letter Carriers for uniforms.	75 00			
Postmaster. Port au Persil	Arrears of salary to 30th June, 1888	1 00			
F. Pepin	To pay for Letter Carriers' street car tickets at Montreal	5 80			
B. Tremblay	Refund of money found in a dead letter and reclaimed	5 00			
A. F. Foss	Expenses in connection with Post Office at exhibition building,	0.50			
	Sherbrooke	3 75			
M. E. Ballantyne		95 00			
T Ft-	Station, before expiration of term.	35 00			
J. Evarts	Allowance for attendance on British mails upon their arrival at	100 00			
PM Denison's Mills	South Quebec	20 00			
do Levis Sub Office	do Post Office funds stolen from his office	88 92			
do St. Jean Baptiste	do I ost Office Idida stolei Hom his onive	00 02			
de R	do Postage Stamps destroyed by fire	50 00			

Detail of all payments for Miscellaneous Disbursements on account of the Post Office Department, in Quebec, made within the year ended 30th June, 1889—Concluded.

Name.	Particulars.		
P. Jones. T. Cunningham. J. McLaughlin J. Manning R. Lanning. L. Quinlan. J. Quinlan. J. Berthelet. R. Talbot. A. Trudel. T. F. Battle. Postmaster, Hochelaga. do Point St. Charles. do St. Jean Bte	do d	200 00 455 75 456 25 456 25 456 25	
	Total	\$10,304 63	

WILLIAM WHITE,
Deputy Postmaster-General.

PROVINCE OF NOVA SCOTIA.

Detail of all payments for Miscellaneous Disbursements on account of the Post Office Department, in Nova Scotia, made within the Year ended 30th June, 1889.

Name.	Particulars.		Amount.	
		\$	cts.	
C. J. Macdonald, P.O.L.	Incidental expenses, Post Office Inspector, Halifax	252	00	
H W Blackadar P M.	do Postmaster do	240	92	
Western Union Tel. Co	Telegrams to and from Post Office Inspector, Halifax	255	53	
do	do Postmaster do	16	70	
Post Office Savings Bank	Commissions to Postmasters upon Savings Bank business (12 mos.)			
T	to 31st March, 1889)	374	76	
Director of the Inter-		90	00	
Control Department	Proportion of Postal Union expenses (12 months to 31st Dec., 1888) Military and naval postage paid within the Dominion and refunded		82 58	
Nove Sectio Telephone Co	Rent of telephone at Inspector's Office, Halifax (6 months to 31st	20	90	
Nova Scotia Telephone Co	March, 1889).	20	00	
do do	Rent of telephone at Post Office, Halifax (12 months to 30th April,	20	00	
,	1889)	40	00	
Burland Lithographic Co	Postal maps of Nova Scotia	952	67	
J. McN. Gabriel	Expenses incurred while assorting British Mails at Halifax	104		
W. H. McRobert		24	00	
S. M. Mackenzie	Refund of postage erroneously charged on newspapers mailed to			
	subscribers in the United States, from 1st January, 1883, to	O.W.		
W. C. I	30th November, 1888		97	
W. Graham	Legal expenses in re Kelly, late Postmaster at Shelburne Compensation for Postage Stamps stolen from his office	112	48	
Postmaster, Annapolis do Aylesford			09	
do Hebron	Allowance for forward duty from 1st April, 1883, to 31st December,	99	Uð	
do Hebron	1885)	137	50	
do Head of Wal-		101		
lace Bay, N.S	Allowance for increase of salary from 1st January, 1884, to 30th			
•	June, 1885	19	00	
Postmaster, Rawdon Gold				
Mines	Compensation for Postage Stamps destroyed by fire.	30	75	
Postmaster, Upper Mus	Allower of for forward duty from Tonnery 1st 1990 to Tonnery			
quodoboit	Allowance for forward duty from January 1st, 1886, to June 30th,	200	. 00	
T. E. Davison			85	
1. E. Davison	tremoval expenses, Ottawa to Hamax	29	00	
	Total	\$2,994	28	

WILLIAM WHITE,

Deputy Postmaster-General.

PROVINCE OF NEW BRUNSWICK.

DETAIL of all payments for Miscellaneous Disbursements, on account of the Post Office Department in New Brunswick, made within the year ended 30th June, 1889.

	(
Name.	Particulars.	Amount.
		\$ ets
S. J. King, P.O.I	Incidental expenses, Post Office Inspector, St. John	132 16
P. McPeake, P.M	do Postmaster, Fredericton do St. John	17 80
E. Willis, P.M	do do St. John	332 16
C. P. Telegraph Co	Telegrams to and from Post Office Inspector, St. John	2 89
Western Union Tel. Co.	do do do do Odo Postmaster, Fredericton.	155 25
do	do Postmaster, Fredericton	11 94
do	do do St. John.	28 04
St. Martins Telephone Co	Telephone message, Post Office Inspector, St. John	0 80
Post Office Savings Bank.	Commissions to Postmasters upon Savings Bank business (12 mos. to	050 40
D' / CIL Tituni	31st March, 1889)	658 43
Director of the Interna-		91 69
tional Postal Bureau Nova Scotia Tel. Co		21 62
Nova Scotia Tel. Co	March, 1889.	20.00
New Brunswick Tel. Co		17 50
Nova Scotia Tel. Co	Rent of telephone at Post Office, Fredericton (4 mos. to 31st Jan., '89)	6 67
	do do (6 mos to 31st July '89)	10 00
Burland Lithographic Co.	do do (6 mos. to 31st July, '89) Postal maps of New Brunswick	645 30
J & A McMillan.	Map of New Brunswick for Post Office Inspector, St. John	50 00
Den Minister of Justice.	To pay legal expenses in Regina vs. Fisher and Farmer, sureties for	00 00
Dop, Ellister or o anti-	late Postmaster, Portland	174 70
L. R. Harrison	Legal services in relate Postmaster, Portland	55 20
do	do St. Stephen lottery	150 00
J. L. Finan	Expenses while in charge of Bathurst Post Office	134 00
J. Duke	Compensation for termination of mail contract—Caraquet and Ship-	
	pigan—on opening of Caraquet Railway	10 00
Postmaster, Campbellton	Compensation for Post Office funds stolen from his office	106 17
do Grand Falls. do St. John	do Maritime Bank bills taken on money order acct.	14 00
do St. John	do difference in stock of Postage Stamps on hand	
	upon transfer of Post Office	2 00
	Gratuity for charge of mails at Cape Tormentine, season 1888-89	125 00
R. Dunbar.		OF 00
T (1) 1	March, 1889)	25 00
J. Shehan		40 00
W. Hagerman		20.00
T D Humanhaar	do do at Painsec Junction, Seasons 1874 & '75	45 00
J. B. Humphrey	do at ramsec Junction, Beasons 1874 & 79	49 00
	Total.	\$3,011 63
	Total	40,011 00

WILLIAM WHITE,

Deputy Postmaster-General.

PROVINCE OF MANITOBA, &c.

DETAIL of all payments for Miscellaneous Disbursements on account of the Post Office Department in Manitoba and the North-West Territories, made within the Year ended 30th June, 1889.

Name.	Particulars.	Amour	nt.
		s	ets.
W W McLead POI	Incidental expenses, Post Office Inspector, Winnipeg	151	75
	do Postmaster, Winnipeg.		47
C. P. Telegraph Co.	Telegrams to and from Post Office Inspector, Winnipeg	131	
Great NW. Tel. Co	do do		20
	Commissions to Postmasters upon Savings Bank business (12 mos.	* *	20
1 0st Office Savings Dam	to 31st March, 1889).	21	42
Director of the Interna-			
tional Postal Bureau	Proportion of Postal Union expenses (12 mos. to 31st Dec., 1888)	24	17
Bell Telephone Co	Rent of telephone at Post Office, Winnipeg (12 mos. to 30th Nov.,		
Aikins, Culver & Hamil-	1889)	50	00
ton	Legal services in re Haight, late Postmaster at Rowland	2	00
G. P. Bliss	Conveying dutiable goods from Post Office to Custom House, Win-		
	nipeg	86	00
J. Sheppard	Conveying dutiable goods from Post Office to Custom House, Win-		
**	nipeg	7	00
Postmaster, Calgary	To pay for conveying dutiable goods from Post Office to Custom		
, ,	House, Calgary	25	00
J. King	Services as laborer, Inspector's Office, Winnipeg	402	50
W. S. Wallace	do	114	00
Postmaster, Birtle	Arrears of salary and of rent allowance to 30th June, 1888	120	00
	Compensation for Postage Stamps destroyed by fire at his office		66
	Arrears of rent to 30th June, 1888		00
do Shell River.	do forward duty to 30th June, 1888	20	
do Sumner	The state of the s		00
J. Brown	do forward allowance as late P.M., Milford		58
F. E. Harrison	Removal expenses, Vancouver to Winnipeg	58	50
	Total	1 459	09

WILLIAM WHITE,

Deputy Postmaster-General.

PROVINCE OF BRITISH COLUMBIA.

DETAIL of all payments for Miscellaneous Disbursements, on account of the Post Office Department in British Columbia, made within the Year ended 30th June, 1889.

Name.	Particulars.	
		\$ cts.
E. H. Fletcher, P. O. I .	Incidental expenses, Post Office Inspector, Victoria	25 87
J. C. Brown, P. M	do Postmaster, New Westminster do Victoria	44 00
N. Shakespeare, P.M	Tolograms to and from Port Office Inqueston Victoria	8 90
Victoria and Esquimault	Telegrams to and from Post Office Inspector, Victoria	90 85
Telephone Co	Rent of telephone at Post Office, Victoria (12 mos. to 30th June, '89).	48 00
	Commissions to Postmasters upon Savings Bank business (12)	40 00
2 000 011100 1011 1110	months to 31st March, 1889)	232 33
Director of the Inter-		
	Proportion of Postal Union expenses (12 months to 31st Dec., 1888).	9 76
J. Rooney	Allowance while on special duty at Vancouver	271 50
do	Expenses while in charge of Post Office, Kamloops	30 00
J. Smith	Services as messenger in Post Office Inspector's Office, Victoria	130 00
J. Miller	Conveying dutiable goods from Post Office to Custom House, Van-	18 00
W G Wincon	couver Conveying dutiable goods from Post Office to Custom House, Van-	10 00
W. Cr. Willson	couver	15 00
Duke, Jackson &		20 00
Helmcker	Legal services in re burglary of Post Office, Victoria	13 00
A. Shaw, jr	Expenses in connection with mail contract, Gabriola Island and	
	Nanaimo	2 50
	Arrears of salary to 30th June, 1888	25 00
	Removal expenses, Winnipeg to Victoria	79 00
	Allowance for expenses while on duty in British Columbia	188 50
Mrs. McLeian	D. S. McLelan, who was killed while doing duty as Railway	
	Mail Clerk.	80 00
	Total	\$1,312 21

WILLIAM WHITE,

Deputy Postmuster-General.

PROVINCE OF PRINCE EDWARD ISLAND.

DETAIL of all payments for Miscellaneous Disbursements, on account of the Post Office Department, in Prince Edward Island, made within the Year ended 30th June, 1889.

Name. Particulars.	Amount.
F. de St. C. Brecken,	\$ ets.
P.M., and Asst. P.O.I. Incidental expenses, Charlottetown	153 00
Anglo-American Tel. Co. Telegrams to and from Postmaster and Asst. Post Office Insp	pector,
Charlottetown	60 76
P.E. Island Telephone Co Telephone message for Asst. Post Office Inspector, Charlottet Director of the Interna-	town 0 20
tional Postal Bureau Proportion of Postal Union expenses (12 mos. to 31st Dec., 18	
P.E. Island Telephone Co Rent of Telephone at Post Office, Charlottetown (6 months	to 31st
December, 1888)	15 00
do do Rent of Telephone at Post Office, Summerside (6 months t	o 31st.
December, 1888)	12 50
J. Grant	133 34
J. D. Mason do	00 00
P.E.I. Navigation Co Expenses in connection with Prince Edward Island mails,	
1888	222 72
J. M. Campbell Expenses while in charge of Post Office, Montague Bridge	
Postmaster O'Leary Stn. Arrears of forward duty to 30th June, 1888.	
J. B. Allen Services as telegraph operator at Cape Tormentine, Season 18	
C. Muncey Services as telegraph operator at Cape Traverse, Season 1889	30 00
Total	\$749 04

WILLIAM WHITE,

Deputy Postmaster-General.

PROVINCE OF ONTARIO.

STATEMENT showing the Money Order Offices in operation; the gross Postal Revenue; the Number and Amount of Money Orders issued and paid; the Amount of Commission thereon; and the Compensation, Salary and Allowances paid to the Postmaster at each Office respectively, during the Year ended 30th June, 1889.

Allowance towards Rent, Fuel and Light.	\$60 00 00 00 00 00 00 00 00 00 00 00 00 0	00 00 120 00 120 00
Forward Allow- ance.	120 00 00 00 00 00 00 00 00 00 00 00 00 0	80 00 12 0 00 8 00 8 00 8 00 8 00
Salary.	25	25
Com- pensation paid to Post- masters on M. O.	**************************************	
Total Amount of Money Orders Paid.	**************************************	
Total Commission received from Public.	× 52422.42828228228282828282828282828282828	
Amount of Money Orders Issued.	8	
Number of Money Orders Issued.	255 255 255 255 255 255 255 255 255 255	85.8 87.8 87.8 87.8 87.8 87.8 87.8 87.8
Gross Postal Revenue.	2, 1, 1, 2, 2, 3, 3, 3, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4, 4,	
County.	Wellington Halton Middlesex Cardwell Elgin Glengarry Algona Simcoe Bruce Bruce Wuskoka & Parry Sound Sinnooe Wellington Lanark Lanboon	Essex. Brant Brant Brant Brant Lanark Lanark Bruce Refirew Wellington Simcoe Leeds Huron Stornont York
Name of Office.	Abertoyle Acton Alsa Craig Alsion Algona Mills Algona Mills Allandale Allandale Allandale Allandale Allandale Allandale Alton Alvinston	Amherstburg. Ancaster Ancaster Angus Appin Appin Appideon Arkonae Arkwright Armpror Arthur Fashworth Ashworth Ashworth Athens Authour Authour Authour

55 Y 1000 1a.		rapers (No. 15.)	A. 108
110 00 111 09 10 09 10 09		120 00 66 00 66 00 160 00 120 00 120 00 120 00	120 00
12 00 160 00 12 00 12 00 16 00 16 00 16 00	16 00 400 00	168 8 4 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	
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# 4% 5%%&##################################</td><td></td><td>11820mm+中部联系统统统。21224年212</td><td></td></tr><tr><td></td><td></td><td>28.25.46 28.</td><td></td></tr><tr><td></td><td></td><td>\$</td><td>-</td></tr><tr><td>25854857857885868688888888888888888888888</td><td>272 280 472 461 284 384 384 384 384 384 384 384 384 384 3</td><td>201417114121212141414141414141414141414141</td><td>285 248 274 170 897</td></tr><tr><td>1,198 9,027 1,122 1,143</td><td>211 92 93 94 96 96 96 97 97 97 97 97 97 97 97 97 97</td><td>88.2 1 2 8.8 2 1 2 8.8 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</td><td>7, 711 1, 111 1, 1889.</td></tr><tr><td>287.88 28.88</td><td></td><td>24 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2</td><td>2</td></tr><tr><td>Waterloo Grey Waterloo Waterloo Peterboro' Hastings Simcoe Lennox Control Ontario Control Control Ontario Ontario Ontario Ontario Ontario</td><td>omicoe. Essex. Haskings Andelsex Middlesex Wellington. Durham</td><td>York Kent Kent Kent Huron Juvon Juvon York Bothwell Durham Ontario York Reel Brant Ontario York Reel Hastings Lambton Oxford Northumberland</td><td>Halton Ontario. Algonia Huron. 1888: † Opp.</td></tr><tr><td>Aymer, west Ayr Ayr Ayton SaBaden W Balleboro' Barrie Bath Bathurst Street (Toronto). Y Baysville. Baysville. Bashville. Con Beachburg Beachburg Beachville. Con Beaverton</td><td>Bellowen Belle River Belle River Belle Scorners FBellowod Bellowod Bellowod Bellowod Bellowod Berlin W Berhany</td><td>Di Bleeker Street (Toronto) Di Blande Di Bluth Blyth Bobcaygeon Bobcaygeon You Bondhead Bownanville Dy Bracebridge Dy Brachbridge Dy Brantpton Brighton Brighton</td><td>Bronke. Brooklin. Brooklin. Brougham. Bruse Mines. Bruse B. Huron. ** Closed 31st December, 1888.</td></tr></tbody></table>			

STATEMENT showing the Money Order Offices in Operation, &c., in Ontario..—Continued.

Allowance towards Rent, Fuel and Light.	c c ts c c c ts c c c c c c c c c c c c
Forward Allow- ance.	8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
Salary.	* c t t t t t t t t t t t t t t t t t t
Com- pensation paid to Post- masters on M. O. business.	。
Total Amount of Money Orders Paid.	* 9.23.4.1. %.1.1.5. %.2.2.1.1.1.4. %.2.3.2.2.2.2.2.2.1.1.2.2.2.2.2.2.2.2.2.2
Total Commission received from Public.	* 524232222222222222222222222222222222222
Total Amount of Money Orders Issued.	8
Number of Money Orders Issued.	550 550 550 550 550 550 550 550 550 550
Gross Postal Revenue.	8. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6. 6.
County.	Brant Muskoka & Parry Sound Northumberland Haldinand Ontario Grenville Bruce Bruce Bruce Bruce Cortumberland Haldinand Ontario Ontario Ontario Mudlesex Muskel Durham Gontario Muddesex Muskel Bruce
Name of Office.	Burford Burk's Falls Burlington Burlington Burlington Caledonia Caledonia Caledonia Cambachie Cambachie Candachie Canthoray Campbellville Cardinal

53 Victoria.	Sessional Papers (No. 15.)	A. 1890
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Northumberland Simcoe York York York Simcoe Bruce Ontario Waterloo Freel Simcoe Fleel Simcoe Fleel Simcoe Agendo	Middlesex Simcoe Simcoe Broce Broce Broce Broce Broce Carey Stormont Middlesex Middlesex Wellington Brant Brant Brant Brant Brant Brant Brant Brant Wellington Brant Brant Brant Brant Brant Brant Hadron Mollington Circy Wentworth Perti Ontario Muskoka & Parry Sound Gray Wentworth Wentworth Wonk Muskoka & Barry Gray Wentworth Wonk Wentworth Wonck Gray Wonk Huton Monck Gray Elgin Simcoe.	Huron. Waterloo. Bruce. Wellington Oxford. \$\frac{\pi}{0.989.}\$\$\frac{\pi}{0.9804}\$\$\$\frac{\pi}{0.989.}\$\$\$\$\frac{\pi}{0.989.}\$
Colborne Coldwater Coldwater Foleman Collingwood Sollingwood Solumbus Colmoy's Bay Columbus Conestogo P C Conestogo P C Conest		Egmondville Huron Elminia. Waterloo Elmwood Bruce Elora Wellington Prubro Oxford Prubro Oxford + Opened 1st January, 1888. + Opened 1st January, 1888.

STATEMENT showing the Money Order Offices in operation &c., in Ontario.—Continued.

Allowance towards Rent, Fuel and Light.	% 6 6 8 8 8 8 8 9
Forward Allow- ance.	** ct.
Salary.	** ct. 1,2,2,3,4,4,6,6,6,6,6,6,6,6,6,6,6,6,6,6,6,6,6
Com- pensation Paid to Post- masters on M. O. Business.	* -8848884444428272725744844444444444444444
Total Amount of Money Orders Paid.	**************************************
Total Commission sion received from Public.	※ 25 25 25 25 25 25 25 25 25 25 25 25 25
Total Amount of Money Orders Issued.	* 455 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5
Number of Money Orders Issued.	22 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
tross Postal Revenue.	** E 3 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
County.	Muskoka & Parry Sound Wellington. Essex. Victoria Middlesex Middlesex Middlesex Middlesex Middlesex Melland Haron. Lambton. Melland Welland Welland Welland Huron. Lambton. Merathon. Leeds Harton. Waterloo. Leeds Wentworth Halton. Bruce Cleeds Halton. Middlesex Hiddlesex Middlesex Middl
Name of Office.	Emsdale Erin. Essex Centre Exerer. Fergus Fregus Fingal Fisherville Fleshervon Florence Fort Brie. Gananoque. Georgetown Glanmis. Glanmis. Glanmis. Glanmis. Glengla. Georgetown Glanmis. Granton

53 Victoria.	Sessional Papers (No.	15.) A. 1890
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	129 68 68 68 68 68 68 68 68 68 68 68 68 68	
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	2, 2, 2, 3, 3, 2, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3,	16,650 1,111 3,5642 38 1,889 14 1,589 14 1,589 14 1,59 16 1,415 88 1,415 88 1,415 88 1,415 88 1,415 88 1,415 88 1,415 88 1,415 88 1,415 88 1,415 88
2572 2572 2572 2572 2572 2572 2572 2572	2, 1, 2, 1, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,	88 21 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2
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	Howelstown. Howelstown. Horning's Mills. Humberstone. Huntsville. Ingersoll. Innerwip. Invermay. Invermant. I	Kineardine Brucking King Yor Kingston Free Kingsville Esse Kinpen Vict Kinpen Vict Kinpen Vict Kinpen Vict Kinpen Vict Klock's Mills Nip Komoka Mid Lakeport Pet Lakeport Nor Lambton Mills Yor Lambton Mills

STATEMENT showing the Money Order Offices in operation, &c., in Ontario-Continued.

Allowance towards Rent, Fuel and Light.	86 88 88 88 88 88 88 88 88 88 88 88 88 8
Forward Allow- ance.	** \$25000000000000000000000000000000000000
Salary.	**************************************
Com- pensation paid to Post- masters on M. O.	※ 第名の第8の第3 には本来を表すすに本当年の表別をはずるのは、 ※ はずるような。 おっのりにのってはいったとうの。 をはなった。 まっのりにのってはいったとうの。※ 第名の第8の第2の第一名のは、 ※ 第名の第3の第二十四条の第二十四条の第二十四条の第二十四条の第二十四条の第二十四条の第二条の第二条の第二条の第二条の第二条の第二条の第二条の第二条の第二条の第二
Total Amount of Money Orders Faid.	** 19 8. 8. 8. 4. 4. 4. 4. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
Total Commission sion received from Public.	% 表示证据的证据的证据的证据的证据的证据的证据的证据的证据的证据的证据的证据的证据的证
Total Amount of Money Orders Issued.	2, 2, 1, 1, 2, 2, 3, 2, 1, 1, 2, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3, 3,
Number of Money of Orders Issued.	28.21 28.21 28.21 28.21 28.22 28 28.22 28.22 28.22 28.22 28.22 28.22 28.22 28.22 28.22 28.22 28
Gross Postal Kevenue.	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
County.	Essex. Sinacee Victoria Perth. Victoria Algona. York Middlesex Go Deeds Bruce Leeds Bruce Leeds Musskoka & Parry Sound Victoria Algona
Name of Office.	Leannington Listrowel Listrowel Listrowel Listel Britain Little Britain Little Current London, West Machoe Magnetawan Manilia Manilia Manilia Manilia Markdale Merickville Middleville

53 Victoria.	Sessional Papers (No. 15.)	A. 189
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526.1 526.2 517.0	48855888888888888888888888888888888888	1, 06, 2,5,4,5,8,5,6,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5
	6.65 6.65	
Comwall Comwall Ferth Victoria Victoria Victoria Cardwell Lambton Middlugton York Middleex Middleex Middleex	Wellington. Haldinand. Haldinand. Middlesex Middlesex Halton. Leeds Addington. Middlesex Durham Waterloo do Ontario Lincoln and Niagara Welland Ontario Lincoln and Signara Carleton York York York York Halton Carleton Halton Oxford. Oxford. Oxford. Oxford. Oxford. Oxford. Oxford. Oxford.	Halton Victoria Lennox Lambton Victoria
Mille Roches Milverton Minden Minden Mitchell Moltawk Mono Mills Moorefiel Morpeth Morrisburg Morriston Mount Albert Mount Brydges Mount Elern Mount Elern		Oakville Oakwood. Odessa Oil Springs

STATEMENT showing the Money Order Offices in Operation, &c., in Ontario. — Continued.

Allowance towards Rent, Fuel and Light.	200 00 00 00 00 00 00 00 00 00 00 00 00
Forward Allow-ance.	**
Salary.	8. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
Compensation paid to Postmasters on M. O. business.	**************************************
Total Amount of Money Orders Paid.	8 ct. 29,775 78. 78. 78. 78. 78. 78. 78. 78. 78. 78.
Total Commission sion received from Public.	**************************************
Total Amount of Money Orders Issued.	8, 5,5,2,2 1,5,6,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,5,
Number of Money Orders Issued.	2.1. 1.0. 4. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.
Gross Postal Revenue.	**************************************
County.	Wellington Sinncoe Durham Eigin. Eigin. Eigin. Contario Coxford. Coxford. Coxford. Grey. Bruce Lanark Halton Wellington Brant Grey Middlesex Renfrew Sinncoe Lanark Lanark Lanark Lanark Halton Wellington York Middlesex Renfrew Sinncoe Lanark Eigen
Name of Office.	Orangeville Orilia Orono Orono Orwell Osecola Oshawa Ottava Palseh Parshemo Parshemo Parkdale Park Hill Pary Sound Pelee Island Pelee Island Pelee Island Pelee Island Peterboro' Peter Street (Toronto) Petrolea Port Barwell

53	Victoria.	Sessional	Papers	(No.	15.
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os victoria.	Sessional Papers (No. 15.)	A. 108
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	100 88 88 88 88 88 88 88 88 88 88 88 88 8	
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	1, 287 28 28 28 28 28 28 28 28 28 28 28 28 28	351 656 831 831 831 831 831 831 831 831 831 831
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Bruce Durham Ontario Welland Norfolk Rigin Muskoka & Parry Sound. Grenville Waterloo Grey Waterloo Grey Waterloo Grey Wellington.	Algeona Algeona Algeona Benfrea Prescott Parescott York Elgin Bruce York Renfrea Welland Bruce York Renfrea Wellington Wellington Wellington Huskoka & Parry Sound Wellington Wellington Elgia E	York do Algona Oxford Haron. Haldimand Ontario
	Ratho Oxt Rat Portage Rat Portage Rat Renthrew Ret Richmond Hill You Kichmond Hill You Ridgeway Riverside You Rockwood Rockton We Rockwood Rockton We Rockwood Rockwood Rockon We Rockwood Rockwood Rockon We Rockwood Rockwood Rockon We Rockwood Rockon We Rockwood Rockon We Rockwood	Scarboro' York Schomberg do FSchenber Algoma Scotland Scaforth Huron Scaforth Haddimand Scaker Bridge Ontario

STATEMENT showing the Money Order Offices in operation, &c., in Ontario-Continued.

Allowance towards Rent, Fuel and Light.	\$ cts. 120 00 210 00 210 00 40 00 40 00 40 00 60 00	120 00
Forward Allow- ance.	24 Ct 8 Ct	16 00
Stelary.	** ct ** (1.14.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0.0	
Com- pensation Paid to Post- masters on M.O. business.	& • 50 - 37 - 3 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5 - 5	9 34 29 14
Total Amount of Money Orders Paid.	\$ cts. 1,826 89 2,826 80 3,826 80 2,167 187 197 188 42 1,384 86 1,384 86 1,384 86 1,384 86 1,384 86 1,385 89 1,378 89 1,378 99	958
Total Commission received from Public.	**************************************	27 20 80 16
Total Amount of Money Orders Issued.	\$ cts. \$ 3.888 9.9 cts. \$ 3.888 9.9 cts. \$ 3.888 9.9 cts. \$ 3.888 9.9 cts. \$ 3.989 9.9 cts.	3,644
Number of Money Orders Issued.	28.88 1, 58.84 1, 56.94 1, 56.	_
Gross Postal Revenue.	\$ cts. 508 34 509 45 509 45 509 45 509 45 509 6,145 50 6,	
County.	Oxford Hastings Vork Gney Norfolk Simcoe Leeds and Grenville Wentworth Basen. York Gign Middlesex Pork Gign Middlesex Pork Hastings Wellington Wentworth Ontario Wentworth Ontario Perel Middlesex Welland Hastings Wellington Wentworth Ontario Perel Middlesex Perel Algoma Ontario Ontario Vork Wentworth Ontario Ventworth Addington Wentworth Ontario Ventworth Angola	
Name of Office.	Shakespeare Shanonville Shanon Shelbure Simce Singhampton Smith's Falla South's Falla South Woodslee *South Woodslee *South Woodslee *South Woodslee *South Woodslee *South Woodslee *Springfield on-the-Credit Springfield *Springfield *Springfield *Springford Stayner Stella Stayner	Thamesford.

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9, 100 30	2,010 2,010	6,550 9,830 9,830	2,615 36	63	114	123	42	48	100	230	207	2	200	200	010	000	100	000	000	77.0	3	066	777	10	88	[73	365	<u>.</u>	223 233	000	07.5	040	2,769 70 8,449 59	15	15	929	114	36	395	357	39	280	#	979	19	16.	90 115 00	148 4 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
150	007	110	98	88	1.056	478	1.344	387	95.758	2016	177	1,111	3 5	0776	400 60	707	7/1	526	299	106	133	189	209	53	1,707	27.4	1,385	279	457	1,010	76	253	9 1 0	614	1.323	461	824	287	314	269	233	627	210	600	307	1,454 2,5	1 901	1,0,1
196 08	1 919 04	301 53	1 398 89	452 27	3.661.88	1,523 69	4,346 57	1,061 21	318,741 91	1 95 1 20	7,404 60	00 101.6	1 150 99	1,100 22	017	201 01	0.51 50	3,771 80	1,030 78	316 05	479 85	428 93	437 87	543 63	4,859 79	1,268 73	2,723 08	485 50	773 87	1,237 55	297 76	70 222	1 775 20	4 141 68	9,553,48	1,090 73	3,433 14	365 48	842 75	787 67	1,056 44	762 83	1,015 66	1,681 40	1,821 28	4,764 35	00 762 00	20,100 00
Lambton	rasemgs	Greek.	Vonk	Simone	Welland	Essex	Norfolk	Brilloo	Vorl	1 OIA					Bruce	Elgin	Y ork	Ontario	Prescott				-	Stormont		Essex.	Bothwell	Elgin	Middlesex		Peterboro'	Lampton	Wentworth	Wotenlos	Lambton		Welland	Monck	Waterloo	Prince Edward	Elgin	York	Leeds	York	Dundas	Ontario	do	Bruce
	_			:		Filbury Centre				Lorondo		Irenton	Tullamore	Tweed	Underwood	Union	Unionville	Uxbridge.	Vankleek Hill	Varna	Victoria Harbour	Vienna.	Vittoria	Wales	5 Walkerton	ZWalkerville.	Wallaceburg	Wallacetown. Elgin	Wardsville	Warkworth	Warsaw	Warwick	Waterdown	wateriord	Waterioo, West	Wanhanchana	Welland	Welland Port	Welleslev	Wellington	West Lorne.	Weston	Westport	West Toronto Junction York	West WinchesterDundas.	WhitbyOntario.	Whitevale	WisrtonIbruc

STATEMENT showing the Money Order Offices in operation, &c., in Ontario-Concluded.

Allowance towards Rent, Fuel and Light.	\$ ct.3. 506 90 90 90 90 90 90 90 90 90 90 90 90 90	23,132 32
Forward Allow- ance.	160 90 90 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	19,596 83
Salary.	\$ cts. 290 00 1,000 00 1,000 00 3,100 00 3,10 00 1,50 00 1,50 00 3,10 00 1,50	243,967 14
Compensation paid to Postmasters on M.O. business.	85 6 6 7 8 7 8 7 8 8 8 8 8 8 8 8 8 8 8 8 8	12,596 10
Total Amount of Money Orders Paid.	2, 688 92 92 93 93 93 93 93 93 93 93 93 93 93 93 93	5,268,129 39
Total Commission received from Public.	\$22.4	44,293 99
Total Amount of Money Orders Issued.	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	5,547,482 12
Number of Money Orders Issued.	346 1,2394 1,2394 1,239 1,039 1,039 1,039 1,039 1,981 1,981	365,824
Gross Postal Revenue.	86 cs. 246 cs.	1,394,159 14
County.	Bothwell. Glengarry Essex. Huron. York. Perth. Perth. Perth. Perth. Victoria Huron. Lambton. Addington. Haldinand.	
Name of Office.		Totals

+ Salaries, de., entered elsewhere.

WILLIAM WHITE,

Deputy Postmaster General.

W. H. SMITHSON,
Accountant.

* Opened 1st October, 1888,

STATEMENT showing the Money Order Offices in operation; the gross Postal Revenue; the Number and Amount of Money Orders issued and paid; the amount of Commission thereon; and the Compensation, Salary and Allowances paid to the Postmaster at each Office respectively, during the Year ended 30th

						2			
County.	Gross Postal Revenue.	Number of Money Orders Issued.	Total Amount of Money Orders Issued,	Total Commission received from Public.	Total Amount of Money Orders Paid.	Com- pensation paid to Post- masters on M. O.	Salary.	Forward Allow- ance.	Allowance towards Rent, Fuel and Light.
	& cts.		& cts.	& cts.	& cts.	& cts.	e cts.	& cts.	& cts.
	166 89	12	530 83	4 25	309 56	1 35	95 00		
		27.1						12 00	
		401						-	00 09
:		412						-	
		200						-	
Beauharnois		440						_	40 00
		13							40.00
:		754							
		10							
		385						100 00	00 09
Bonaventure		147							
		100							
:		151						80 00	
		682							100 00
Temiscouata		200							
Sherbrooke		295						:	
Fortneut		777							
		701							
		999							
		777						39 00	60.00
		103							
:		1 197							140 00
		2,216			-				
		397							
		208			-			48 00	
		262	6,387 37	56 13	4,278 03	17 41			80 00
		494							-

STATEMENT showing the Money Order Offices in Operation, &c., in Quebec-Continued.

Allowance towards Rent, Fuel and Light.	% %
Forward Allow- ance.	8 ct. 116 0 0 0 116 0 0 0 0 0 0 0 0 0 0 0 0 0
Salary.	\$\\ \text{ct}\$ \text{ct}\$ \\ \
Com- pensation Paid to Post- masters on M. O.	8 88300500073750000057818800000853570000000000000000000000000000
Total Amount of Money Order: Paid.	** 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Total Commission received from Public.	* 125-551 * 732285520 * 732285520 * 732285520 * 732285520 * 732285520 * 732285520 * 732285520 * 732285520 * 73228520 * 73228520
Total Amount of Money Orders Issued.	### 11.00
Number of Money Orders Issued.	50
Gross Postal Revenue.	\$ cb. 1,648 9 64 188 188 188 188 188 188 188 188 188 18
County.	Portneuf Drummond Missisquoi Brome Lévis Huttingdon Missisquoi Gaspe Shefford Argenteul Stranstead Chicoutnin Huttingdon Huttingdon Huttingdon Hochelaga Ottawa Huttingdon Hochelaga Ottawa Huttingdon Hochelaga Ottawa Huttingdon Hutt
Name of Office.	Deschambault Dunham Bast Farnham Bast Farnham Bast Farnham Farnham Frelighsburg Gaspe Basin Granby Granby Granby Hull Henryville Henryville Henryville Henryville Henryville Hochelaga Kimgsey Falls Kimgsey Falls Kimgsey Falls Kingsey Falls Lachine

.00 08		8 8 8 8		:	.00.00					90 00	:			40 00	:	:	:	120 00	40 00			00 08	60.00		80 00	:	:	:	40.00	:	:	:	:	:		40 00	where.
16 00	12 00			:	. 00 00	00 01	120 00	:		120 00	40 00		:			24 00			00 9		28 00		00 00		80 00		:		16 00			:		12 00	:	:	entered elsewhere.
116 00 500 120 00								230 00						-	-	-		720 00	-			520 00								-	-	-				360 00	37 50 . 200 00 .
15 31 44 39 6 43																		61 27				38 65				7 04							22 34		* 60 81		21 66
2,566 76 12,260 77 3,060 44	98	55	964		020		90#															7,201 89													65 22		1,304 31
26 04 102 46 11 71																										18 44										42 94	61 95 April, 1889.
4, 496 78 13, 262 40 1, 582 81	334	314	6,353 50		200	124		88														13,480 55			964		048	020		186						5,048 27	8,202 07 \$ Opened 1st
204 496 81	233	132	461	. S.	100	27.315	738	157	86	156	286	279	71	127	406	516	10	1.981	175	6,166	250	1,009	910	200	409	155	153	86.2	117	4	16	317	272	100	099	322	253
317 90 766 49 387 22					284		45							1,113 20			1,095 81	3.665.57	1,074 74	42,419 89	759 25	1,995 41	1 876 97	385 40	2,582 42	441 15	300 88	201 49	816 86	381 34	476 40	549 05	382 49	718 20		946 86	97 23 610 08 d 1st January,
Charlevoix Lévis Rimouski	Chambly	Maskinongé	Brome	Ottawa	Stanstead	Hochelaga	Charlevoix	Napierville	Bonaventure	Nicolet	Ottawa	Missisquoi	Hochelaga	Chateauguay	Bonaventure	Gaspé	Yamaska	Charlevoix.	Pontiac	Quebec.	Pontiae	Richmond	Vaudreuil	Vamaska.	Temiscouata	Compton	Stanstead	Ottown	Argentenil	Champlain		Iverville.	Berthier	Portneuf	Hochelaga	Rouville	St. Hyacinthe
		Louiseville	Mansonville	Maniwaki	Massawippi	Montreal Montreal	Murray Bay	_	New Carlisle		North Hatley	Notre Dame de Stanbridge.	Contario Street (Montreal).	Ormstown	Paspebiac	Percé	Flerrøville	7 Foint & Charles	Portage du Fort.	Quebec.		Richmond, East	Kigaud.	River David	Rivière du Loup (en bas)	Robinson	Rock Island	Roxton FallsShenord	St. Andrew's East	TSte. Anne de la Pérade.		St. Athanase		St. Casimir.	treal)	St. Césaire.	St. Chrysostôme Chateauguay St. Chrysostôme Cheed Ist October, 1888.

STATEMENT showing the Money Order Offices in operation, &c., in Quebec-Concluded.

Allowance towards Rent, Fuel and Light.	6 Cts. 220 00 00 00 00 00 00 00 00 00 00 00 00
Forward Allow- ance.	\$ cts. \$\frac{112}{122} \text{00} \text{112} \text{00} \text{112} \text{00} \text{00} \text{120} \text{00} 00
Salary.	28. c fs. c
Com- pensation paid to Post- masters on M.O. business.	% 0210004469048041410480 112552702800100100100000000000000000000000000
Total Amount of Money Orders Paid.	\$ cb. 1, \$89 13. 1, \$89 13. 1, \$89 13. 1, \$89 13. 1, \$89 13. 1, \$89 13. 2, \$10 10. 2, \$10 10. 3, \$10 10. 4, \$10 10.
Total Commission received from Public.	** 488-2018800000000000000000000000000000000
Total Amount of Money Orders Issued.	• 8. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.
Number of Money Orders Issued.	258 258 261 277 277 277 277 288 1130 1130 1130 1140 1150 1150 1150 1150 1150 1150 115
Gross Postal Revenue.	88 838 838 838 84 84 85 85 85 85 85 85 85 85 85 85 85 85 85
County.	Lotbinière. Two Mountains Rimouski Joliette. Joliette. Champhain. Nicolet. Nicolet. St. Hyaciuthe Lotbinière. St. Hyaciuthe Lotbinière. St. John's Quebec. Charlevoix. Soulanges. Portneuf Compton. Portneuf Compton. Pontiac. Sheebooke Mogantic. Richelieu. D'ummond Arthabaska. Stanstead. Brome Brome Brome Stanstead. Brome Brome
Name of Office.	Ste. Croix. St. Eustache St. Eustache St. Flave Station. St. François, Beauce. Ste. Cenerieve de Batiscan. Champlai St. Gregoire. St. Hanri de Montreal. St. Hyacinthe. St. Harri de Montreal. St. Hyacinthe. St. Jewn de Chaillons. Lotbinier St. Jewn de Chaillons. Lotbinier St. Hyacinthe. St. Hyacinthe. St. John's East. St. Polycarpe. St. Paul's Bay. St. Raymond. St. Raymond. St. Remi. St. Raymond. St. Remi. St. Raymond. St. Remi. St. Robh de Québec. Gubber. St. Salvester, Last. Gubber. St. Sylvester, West. Compton. Shawville. Shavville. Sharbook Sharbook Stanstead. Stanstead. Stanstead Stanstead Stanstead Stanstead Stanstead Stanstead Missisquo Terebonne. Missisquo Terebonne. Missisquo Terebonne. Missisquo Terebonne. Missisquo Terebonne. Missisquo Terebonne. Terebonne. Missisquo Terebonne. T

53	· V	101	01	14			
	30 00	40	100 00			4,250 00	
360 00	00 6	40 00 200 00	00 96		24 00	6,207 50	, 1888.
	240 00					51,953 50	December,
	10 51				5 78	2,382 87	+ Closed 31st December,
13,011 12	530 64	4,955 49	7,917 35	1,650 58	726 04	1,577,448 61	
114 66 26 05	28 05 4 32	61 72 5 92	98 27	13 24 05	13 21	11,405 89	
	4,078 65			1,452 10		1,321,589 16	‡ Opened 1st October, 1888.
877	214	424	1,050	7,1	58	74,195	pened 1st
	834 11 284 21					490,988 20) ++
Three Rivers. St. Maurice. Ottawa.		Valleyfield. Beauharnois. Victoriaville Arthabaska.		Windsor Mills Kichmond	Yamachiche St. Maurice	Totals	* Opened 1st January, 1889.

William White, Deputy Postmuster-General.

W. H. SMITHSON,
Accountant.

PROVINCE OF NOVA SCOTIA.

STATEMENT showing the Money Order Offices in operation; the gross Postal Revenue; the Number and Amount of Money Orders issued and paid; the Amount of Commission thereon; and the Compensation, Salary and Allowances paid to the Postmaster at each Office respectively, during the Year ended 30th June, 1889

Allowance towards Rent, Fuel and Light.	\$ cts. 60 00 120 00 40 00 100 00 100 00 80 00
Forward Allow- ance.	8 cts. 300 00 150 00 64 00 120 00 120 00 20 00 24 00
Salary.	25 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Com- pensation Paid to Post- masters on M. O.	% 7.00 <t< td=""></t<>
Total Amount of Money Orders Paid.	8 6 48 68 68 68 68 68 68 68 68 68 68 68 68 68
Total Commission received from Public.	* 528252525252525252525252525252525252525
Total Amount of Money Orders Issued.	8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8
Number of Money Orders Issued.	1, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2, 2,
Gross Postal Revenue.	** cp. 20.00 cp.
County.	Colchester Cumberland Annapolis Antigonishe Richmond Cumberland Kinn s do Victoria Shelburne Colchester Antigonishe Digby King s Guysboro Cape Breton Annapolis Lunenburg Queeri's Guysboro Cape Breton Annapolis Lunenburg Cape Breton Shelburne Annapolis Lunenburg Guysboro
Name of Office.	Acadia Mines Amherst. Annapolis Antigonishe Artholur. Alvestord Baddeck. Bayfield. Caladonia Corner. Caladonia Corner. Caladonia Corner. Caladonia Sidalonia Corner. Caledonia Sidalonia Corner. Caledonia Sidalonia Corner. Caledonia Sidalonia Corner. Caledonia Corner. Classe Harbour. Classe Harbour. Classe Harbour. Classe Harbour. Classe Rasks. C. H. Dartmouth.

100 00	10 00 20 00 40 00	110 00	100 00 40 00 80 00 40 00	40 00 40 00 18ewhere,
200 00		24 00 00 00 00 00 00 00 00 00 00 00 00 00		
620 206 206 102 98 98 98 77 77 40 60 60 60 60 60 60 60 60 60 60 60 60 60			25	
			36+284584285888 36+2864886188	
		013 759 8827 8838 8551 106 595 694 694	20,000 143,000	228 737 737 737 729 729 729
			2000 2000 2000 2000 2000 2000 2000 200	
			90, 223 10, 236 1, 221 1, 2	
1,489 256 89 104 1145 1183 1183	266 266 887 780 500 368	302 1125 1154 1159 122 657 657 657 657 898	2,222 1,222 1,541 1,642 1,145 1,145 2,55 2,75 2,75 2,75 2,75 2,75 2,75 2,7	2,386 2,386 2,386 2,386 2,386
			1,1 1,2 2,3 2,3 2,3 2,3 2,3 2,3 2,3 2,3 2,3 2	
Digby Colchester Victoria Colchester do Digby Cape Breton King 8	Colchester Guysboro' Halifax Hants: Yarmouth	Pictou Halifax. Halifax. King's. King's. King's. An do do Annapolis. Cape Breton do	Queen's. Antigonishe Saledowne Cape Breton Yarmouth Richmond Colchester Lunenburg Inverness Cape Breton Hatts.	Amapolis Shelburne Shelburne Dig by Halifax Colchester Amapolis Queen's do Pictou Hants.
Digby. Economy. English Town. Five Islands. Folly Village. Freeport. Gabarouse. Grand Pre.	Great Village. Guysboro Haliax Hantsport. Harbour au Bouche.	Hopewell Pictou Halifax Isaac's Harbour Kanac's Harbour Kametcook Kangsbort Hants King's Kingsport Guvsbort Kingsport Gurgston Zation do Lawrencetown Amapol Lingan Gape Bre Little Bras d'Or do Little Glace Bay do do	Galines classed by "Lockaport A Lockaport Cockeport Cower Argyle Cower Argyle Cower Stewacke Cow	Margarets ville Metgray Metgray Metagnishe Metaghan Middle Stewacke Middle Stewacke Middleton Mill Village Mitch Stewacke Mitch Stewacke Middleton Mill Village Mitch Stewacke Amanapol Milton New Glasgow New Glasgow Methon Metho

STATEMENT showing the Money Order Offices in operation, &c., in Nova Scotia-Concluded.

Allowance towards Rent, Fuel and Light.	6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6
Forward to Allow- Ree ance.	8 cts. 100 000 1100 000 1100 000 1240 000 1250 000 1250 000 1250 000 1250 000 1250 000 1250 000 1250 000 1250 000 1250 000 1250 000 1250 000 1250 000
	## 838#38888888888888888888888888888888
Salary	88688888888888888888888888888888888888
Com- pensation paid to Post- masters or M. O.	**************************************
Total Amount of Money Orders Faid.	\$ cts
Total Commission received from Public.	** ** ** ** ** ** ** ** ** ** ** ** **
Total Amount of Money Orders Issued.	8. 9,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0
Number of Money Orders Issued.	1, 52, 52, 52, 52, 53, 52, 53, 54, 54, 55, 55, 55, 55, 55, 55, 55, 55
Gross Postal Revenue.	\$ 6.00
County.	Hants. Lunenburg Hants. Cape Breton Cape Breton Pictou Inverness do Shelbure Guysboro' King's. Yarmouth Cumberland Richmond Anapolis Antigonishe Richmond Guysboro' Guysboro' King's. Yarmouth Cumberland Richmond Digby Shelburne Guysboro' Cumberland Anapolis Antigonishe Richmond Digby Shelburne Cumberland Antigonishe Richmond Digby Antigonishe
Name of Office.	Newport Landing New Ross Noel Noel Notel Notel Parrsboro Petron Port Hastings Port Hawkesbury Port Hawkesbury Port Hawkesbury Port Medway Port Medway Port Medway Port Melway Port Millams Pubmico Harbour Putwash River Mailgans Pubmico Harbour River Tohn River Tohn River Philip St. Andrews St. Peter's Sandy Cove Shelburne Sherbrooke Sherbrooke Shelbarton Strathlorne Sydney Sydney Sydney Sydney Sydney Tangier Thorburn Tracadie.

55 Victoria.	Ses	Sionai
40 00 00 00 00 00 00 00 00 00 00 00 00 0	100 000	2,486 66
8 8 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	400 00	4,343 00
1,950 1,1050 1,1		38,625 34
### ### ### ### ### ### #### #### ######		4,808 47
94.1.2.7.09.01.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.		1,626,467 73
28248882888888888888888888888888888888		12,946 42
41, 64, 64, 64, 64, 64, 64, 64, 64, 64, 64		1,764,088 20
3,04 1103 103 103 103 103 103 103 103 103 10	1,395	99,727
8,566 197,602 197,602 1,023 1,03 1,03 1,03 1,03 1,03 1,03 1,03 1,0		176,664 43
Truro Colchester Tusket Varmouth Upper Musquodoboit Halifax Upper Stewacke Colchester Upper Stewacke Golchester Wallace Harts Wasterville Hants West Bay Inverness West River, Sheet Harbour Halifax Westville Pictou Weymouth Bridge do Whycocomagh dhanapolis Windsor Hanspoils Weymouth Bridge do Whycocomagh Annapolis Windsor	Wolfville. King's Yarmouth	Totals. * Opened 1st January, 1889.

WILLIAM WHITTE,
Deputy Postmaster-General.

W. II. SMITHSON,
Accountant.

PROVINCE OF NEW BRUNSWICK.

STATEMENT showing the Money Order Offices in operation; the gross Postal Revenue; the Number and Amount of Money Orders issued and paid; the Amount of Commission thereon; and the Compensation, Salary and Allowances paid to the Postmaster of each Office respectively, during the year ended 30th June, 1889.

Allowance towards Rent, Fuel and Light.	\$ cts. 79 99 40 00 80 00
Forward Allow- ance.	8 C C C C C C C C C C C C C C C C C C C
Salary.	**************************************
Com- pensation paid to Post- masters on M. O.	% 825∞ 7%74 44%24 2332 800 758 238 60 1 40 40 40 40 40 40 40 40 40 40 40 40 40
Total Amount of Money Orders Paid.	8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8
Total Commission sion received from Public.	28824288888888888888888888888888888888
Total Amount of Money Orders Issued.	6. 16. 92 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8. 8.
Number of Money Orders Issued.	888 1577 1578 1,009
Gross Postal Revenue.	28 28 28 28 28 28 28 28 28 28 28 28 28 2
County.	Albert do do Vido Alo Victoria Restigouche Westmoreland Goloucester do Worthumberland Carleton Kent King's Restgouche Charlotte Charlotte Charlotte St. John Carleton Northumberland Carleton King's Restgouche Charlotte Charlotte St. John Carleton Mwestmoreland Victoria Albert
Name of Office.	Albert. Alma Anagance. Apolanqui. Apolanqui. Apolanqui. Sale Verte Bathurst Village Bathurst Village Bathurst Village Bathurst Village Bathurst Village Batteril Bristol Campoellon Campellon Campellon Caracterinst Station Caracterinst Statio

100 00 100 00 100 00 100 00 100 00 100 00	elseuherc.
888 9000	do., entered
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68 841 848 848 848 868 868 868 868 868 868 868	
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8	
2 5.2 5	
64 64 64 64 65 65 65 65 65 65 65 65	
York. Sunbury Gueen's Gueen's Clarictica Charlotte Charlotte Charleton Albert Abert Abort Abort Abort Abort Abort Abort Abort Abort Caleton York King's Victoria Kent Charlotte King's Victoria Kent King's Victoria Kent King's Victoria Kent Charlotte King's Charlotte Abort Westmoreland Abort Westmoreland Charlotte Carleton Restigouche Sunbury Abort King's Carleton Restigouche Go Westmoreland Kent Carleton Restigouche Go Westmoreland Go Westmoreland Go Westmoreland Go Westmoreland Go Charlotte Go Westmoreland Go Westmoreland Go Charlotte Mestmoreland Go Charlotte Go Charlotte Mestmoreland Go Charlotte Mestmoreland Go Charlotte Westmoreland Go Charlotte	her, 1888.
Fredericton Junction Gagetown Gagetown Gagetown Gagetown Grand Manan Grand Manan Grand Manan Grand Manan Harvey Harvey Harvey Harvey Harvey Halberton Halberton Halberton Halberton Halberton Jacksonville Kingston, Kent Kingston, Kent Kingston, King's Kingston, King's Kington Markhamville Markhamville Markhamville Markhamville Markhamville Markhamville Markhamville Markhamville Markhamville Morthum New Mills Oromocto Narrows New Wills Oromocto Narrows New Wills Oromocto Narrows Monoton Narrows New Mills Oromocto Carleton Kent Charlotte Charlo	* Closed 30th September, 1888.

STATEMENT showing the Money Order Offices in operation, &c., in New Brunswick-Concluded.

Allowance towards Rent, Fuel and Light.	\$ cts.	66 628
		_
Forward Allow- ance.	\$ cts. 20 00 40 00 100 00 112 00 10 00 400 00	3,171 34
Salary.	\$ cts. 186 00 96 00 96 00 100 00 100 00 116 00 116 00 44 00 380 00 384 00 11,180 00 11	24,400 34
Compensation paid to Postmasters on M. O. business.	8 15 25 cfs. 15 25 cfs	2,225 24
Total Promount of the Promount	8 cts. 1,689 20 337 71 2,083 77 2,083 77 2,054 15 2,055 51 2,055 5	907,097 65
Total Commission sion received from Public.	\$ cts. 43 64 123 64 161 44 161 44 113 86 202 86 113 85 202 57	7,129 12
Total Amount of Money Orders Issued.	\$ cts. 7, 294 29 1, 835 41 2, 835 42 20, 554 33 20, 554 33 14, 285 33 1, 24, 273 33 1, 388 46 2, 339 97 2, 339 97	954,767 43
Number of Money Orders Issued.	227 729 215 215 1,577 1,577 198 33 152 625 145 1,677	55,493
Gross Postal Revenue.	8 cts. 112 56. 222 95 222 95 13 171 49 171 49 172 29 190 171 49 172 29 190 171 49 172 4730 4730 4730 58 1730 5	126,493 32
County.	Sunbury Gloucester King's York King's Gloucester King's Gloucester King's Gloucen's Kent Queen's Carleton	
Name of Office.	Sheffield Shippigan Springfield Stanley Stanley Sussex Vale Tracadie. Upper Gagetown Weldford Welsford.	Totals

WILLIAM WHITE,
Deputy Postmuster-General.

W. H. Smithson,
Accountant.

PROVINCE OF MANITOBA.

STATEMENT showing the Money Order Offices in operation; the gross Postal Revenue; the Number and Amount of Money Orders issued and paid; the Amount of Commission thereon; and the Compensation, Salary and Allowances paid to the Postmaster at each Office respectively, during the Year ended 30th June, 1889.

of Office. County. Gross Postal Revenue. Number Total Issued. Amount of Evenue. Commission Money Orders Issued. Total Issued. Amount of Evenue. Property Orders Issued. Amount of Evenue. Property Orders Issued. Property Orders Issued. Amount of Evenue. Sects. \$ cts.											
Marquette 8 cts cts cts	Name of Office.	County.	Gross Postal Revenue.		Total Amount of Money Orders Issued.	Total Commission received from Public.	Total Amount of Money Orders Paid.	Com- pensation paid to Post- masters on M. O. business.	Salary.	Forward Allow- ance.	Allowance towards Rent, Fuel and Light.
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$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		Marquette		617							80 00
ty Selkirk	ndon.	op		2,268							
Provencher	rman.	do		161							
Provenecher 1,281 10	horn	Selkirk		269							
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	erson	Provencher		735							
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	dstone	Marquette		299							
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Harney	Selkirk		888							10 00
Selkirk 2 678 81 1,149 30,175 88 204 50 13,620 93 80 28 600 00 80 Provencher 1,556 97 1,221 6,549 23 44 65 2138 89 17 63 273 34 80 Rarquette 1,536 87 418 40,575 52 243 91 8,220 36 18 62 420 00 32 Selkirk 1,536 87 418 13,456 17 91 35 8,952 40 35 81 350 00 52 Rarquette 6,927 06 2,127 41,584 62 328 57 20,774 31 113 23 1,725 00 80 do 57 34 55 127 41,584 62 328 57 20,774 31 113 23 1,725 00 80 5 40 60 721 22,584 65 67 74 80 4,455 88 31 9 56 00 50 80 5 58 1,156 47 501 11,207 44 8,465 77 1,724 43 310 00 24 310 00 24 5 58 1,724 43 8,466 77	medosa	Marquette		1,122							
Provementer	rden	Selkirk		1,149							
Marquette 1,976 42 1,084 40,755 52 243 91 8,320 36 108 05 420 00 32	rris	Provencher		221							
rairie Marquette 6,927 06 2,127 415 15 50 20,774 31 13 23 1,550 0 20 20 20 20 20 20 20 20 20 20 20 20	pawa	Marquette		1,084							
do d	tage la Prairie	Wardnette		9 197							
do do Lisgar Lisgar Lisgar Lisgar G5 11,131 185,746 57 1,724 43 306,836 79 16 85 2 04 57 50 8 35 19 850 0 8 35 19 850 0 8 35 19 850 0 8 35 19 850 0 8 35 19 850 0 8 35 19 850 0 8 35 19 850 0 8 35 19 850 0 8 35 19 850 0 8 35 19 850 0 8 35 19 850 0 8 35 19 850 0 8 35 19 850 0 8 35 19 850 0 8 35 19 850 0 8 35 19 850 0 8 35 19 850 0 8 35 19 850 0 8 35 10 80 8 10 8 10 10 10 11 11 11 11 11 11 11 11 11 11	id City	do		727							
Lisgar L	ıssell.	do		555							
Selkirk 1,099 30 354 9,180 87 59 65 3,863 31 25 39 310 00 24 Lisgar 2,874 36 8,460 77 59 65 4,518 16 23 72 316 00 24 Selkirk 2,874 36 63,516 05 11,131 185,746 57 1,724 43 306,806 79 46 34 650 00 30 107,408 18 25,823 558,430 84 4,298 12 496,627 76 1,042 32 11,785 34 967	cirk	Lisgar		591							
Lisgar 2,874 56 841 90 834 8,460 77 59 95 4,518 16 23 72 816 90 24 88 8,206 82 46 34 8 8,206 82 82 874 85 84 120 43 8,206 82 82 85 95 8430 84 4,298 12 496,627 76 1,042 32 11,785 34 967	ris	Selkirk		354							20 00
Selkirk 63,516 05 11,131 185,746 57 1,724 43 806,836 79 650 00 30 Lisgar 63,516 05 11,131 185,746 57 1,724 43 806,836 79 650 79 80 30 107,408 18 25,823 558,430 84 4,298 12 496,627 76 1,042 32 11,785 34 967	newall	Lisgar		334							
Lisgar 63,516 05 11,131 185,746 57 1,724 43 306,836 79 §	den	Selkirk	874	597							
107,408 18 25,823 558,430 84 4,298 12 496,627 76 1,042 32 11,785 34 967	nnipeg	Lisgar	216	11,131				:			
	Totals			25,823			ŧ			00 296	1,781 66
	************	And the few elicenters of the state of the s				- !					

WILLIAM WHITE,

Deputy Postmaster-General.

W. II. SMITHSON,
Accountant.

NORTH-WEST TERRITORIES.

STATEMENT showing the Money Order Offices in operation; the gross Postal Revenue; the Number and Amount of Money Orders issued and paid; the Amount of Commission thereon; and the Compensation, Salary and Allowances paid to the Postmaster at each Office respectively, during the Year ended 30th June, 1889.

Allowance towards Rent, Fuel and Light.	\$ cts. 70 00 10 00 80 00 80 00 100 00 11	
Forward Allow-ance.	8 cts. 300 00 300 00 40 00 60 00 1,228 00	
. Salary.	\$ cts.	
Com- pensation paid to Post- masters on M. O. business.	6 ct 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
Total Amount of Money Orders Paid.	8 cts. 6,004 57 2388 83 24,238 53 113 95 4,858 88 3,050 75 2,003 75 2,003 10,000 230 10 230 10 230 10 230 11 2,003 3462 45 3,462 46 3,462 46 112,374 84	
Total Commission sion received from Public.	\$ cts. 125 27 129 89 381 10 129 89 381 10 120 89 120 89 120 89 120 89 120 89 120 89 120 89 120 89 120 89 120 89 120 89 120 89 120 89 120 89 120 89 120 89	
Tctal Amount of Money Orders Issued.	\$ cts. 17,078 38 1,895 64 1,895 64 1,595 696 1,934 692 1,934 692 1,934 433 1,934 433 1,934 433 1,934 433 2,734 433 2,734 433 2,734 434 3,744 334 2,734 434 3,744 334 2,744 334 3,744 34 3,744 34	
Number of Money Orders Issued.	649 73 167 107 107 1,044 399 1,055 460 631 450 1,619 1	
Gross Postal Revenue.	\$ cts. 1,522 30 1,622 30 1,67 04 767 88 7,880 03 2,891 30 1,640 95 1,712 11 1,772 11 1,772 11 1,811 53 1,844 56 1,852 636 1,85	
Territory.	Alberta Assmiboia Aberta Aberta Aberta Absriboia Assmiboia do	
Name of Office.	Pauff SBattleford. Broadview Calgary +Cammington Manor Tethbridge Maple Oreek Modeloine Hat Moose Jaw Mooseomin *Prince Albert Qu'Appelle Qu'Appelle Qu'Appelle Savite Current Saltecats Swift Current Kegina. Swift Current Totals	

WILLIAM WHITE,
Deputy Postmaster-General.

W. H. SMITHSON,
Accountant.

PROVINCE OF BRITISH COLUMBIA

STATEMENT showing the Money Order Offices in operation; the gross Postal Revenue; the Number and Amount of Money Orders issued and paid; the Amount of Commisson thereon; and the Compensation, Salary and Allowances paid to the Postmaster at each Office respectively, during the Year ended 30th June, 1889.

WILLIAM WHITE, Deputy Postmaster-General.

W. H. SMITHSON, Accountant.

PROVINCE OF PRINCE EDWARD ISLAND.

STATEMENT showing the Money Order Offices in operation; the gross Postal Revenue; the Number and Amount of Money Orders issued and paid; the Amount of Commission thereon; and the Compensation, Salary and Allowances paid to the Postmaster of each Office respectively, during the Year ended 30th June, 1889.

	1
Allowance towards Rent, Fuel and Light.	\$ cts. 40 00 20 00 100 00
Forward Allow- ance.	\$ cts. 20 00 100 00 80 00 1120 00 120 00 150
Salary.	\$ cts. \$6 00 \$60 00 \$186 00 \$280 00 \$390 00 \$30 00 \$30 00 \$3 076 00
Com- pensation Paid to Post- masters on M.O.	8 cts. 33 89 7 69 85 41 13 057 14 19
Total Amount of Money Orders Paid.	\$ cts. 6,306 30 74,949 42 5,437 03 1,334 94 5,651 54 6,053 54 1,101 39 23,766 19 8,436 19 1,961 75 1,961 75
Total Commission sion received from Public.	\$ cts. 64 22 510 85 66 43 29 62 79 92 79 92 19 73 166 49 13 68 28 16
Total Amount of Money Orders Issued.	\$ cts. 9,136 25 58,772 80 10,258 01 3,510 62 111,508 25 2,700 39 21,948 00 1,874 80 4,400 62
Number of Money Orders Issued.	483 3,726 376 204 408 407 1,274 1,274 112 112 168
Gross Postal Revenue.	\$ cts. 1,034 01 12,233 99 570 60 571 16 882 3,756 2,560 32 3,756 32 3,756 32 3,756 32 2,560 90
County.	Prince Queen's King's Frince Ring's Queen's Prince do Cueen's
Name of Office.	Alberton. Charlottetown Georgetown Georgetown Montague Bridge Souris East. Stanley Bridge Stummerside Lignish Victoria Totals

* Salaries, &c., entered elsewhere.

WILLIAM WHITE,
Deputy Postmaster-General.

W. H. SMITHSON,
Accountant.

STATEMENT (in accordance with the Act 52 Vic., Chap. 20, Sec. 12) of the Post Office Savings Bank transactions during the year ended 30th June, 1889, and of the total amount due to depositors at the close of that period.

Balance due to depositors on 30th June, 1888.	\$ ets 20,689,032 62	Repayments to depositors during the	\$ ets. 7,532,145 56
Deposits received during the year Amount of depositors' accounts transferred from closed Agencies of the Dominion Government Savings Bank during the year	1,085,979 72	June, 1889:— At credit of open \$ cts. accounts22,929,873 01	
the year, in accordance with the statute		positors and not	23,011,422 57
	30,543,568 13	 	30,543,568 13

WILLIAM WHITE,

Deputy Postmaster-General.

David Matheson, Superintendent, Savings Bank Branch. Analysis of the Money Order Business of the Dominion of Canada, for the Year ended 30th June, 1889.

			No. of	\$ ets	\$ cts.
Cotal amount of Mor	or Ondona ica	ued in Ontario	Orders. 365,824		E E 47 400 10
do	do	Quebec	74,195		-,,,
do	do	Nova Scotia	99,727		
do	do	New Brunswick	55,493		
do	do	Manitoba	25,823		
do	do	North-West Territories.	11,153		
do	do	British Columbia	34,227	A	
do	do	Prince Edward Island.			
ao	ao	Frince Edward Island	7,371		130,108 25
Total numbe	r and amount	of Money Orders issued	673.813		11,265,919 95
		id in Ontario			11,200,010 00
do	do	Quebec			
do	do	Nova Scotia		1,626,467 73	
do	do	New Brunswick		907,097 65	
do	do	Manitoba		496,627 76	
do	do	North-West Territories		112,374 84	
do	do	British Columbia			
do	go	Prince Edward Island		127,404 95	
40	40	in it is a second of the secon		121,101 00	10,433,515 47
Total amoun	t of Money O	rders issued and paid			21,699,435 42
		rough Money Order Offices			
	awals paid				
do williai	arrais para				1,002,140 00
		transacted during the Year			

W. H. SMITHSON,
Accountant.

WILLIAM WHITE,

Deputy Postmaster-General.

STATEMENT showing the losses sustained in collecting the Postal Revenue and conducting the Money Order and Savings Bank systems in the Dominion of Canada, brought to account during the Year ended 30th June, 1889.

Post office funds lost in transmission from the Post Office at Bancroft, Ont., to the Bank of Montreal, Ottawa, on 18th October, 1888.	\$ ets. 80 00
Postage stamps destroyed by fire at Bennington, Ont., on 9th November, 1888	2 75
Postage stamps stolen by burglars from Blenheim, Ont., in December, 1885	187 18
Postage stamps stolen by burglars from Bothwell, Ont., 4th February, 1888	33 00
Postage stamps destroyed by fire at Bridgewater, Ont., on 24th of May, 1889	3 38
Postage stamps destroyed by fire at Chesley, Ont., on 9th June, 1888	5 00
Money order funds stolen by burglars from Chesterville, Ont., in June, 1888.	50 00
Post office funds stolen by burglars from Clarke, Ont., on 28th September, 1888	19 50
Postage stamps destroyed by fire at Dacre, Ont., on 7th October, 1884	35 00
Postage stamps destroyed by fire at Dale, Ont., on 23rd February, 1889	9 75
Postage stamps stolen by burglars from Embrun, Ont., on 25th August, 1888	45 00
Postage stamps destroyed by fire, while in transit to Postmaster, Fort Francis, Ont., through burning of postal car on 3rd October, 1886	36 00
Amount allowed on account of Post Office funds stolen by burglars from Fort William West, Ont., on 15th September, 1888.	36 00
Postage stamps destroyed by fire at Garden River, Ont., on 3rd October, 1888	7 50
Postage stamps stolen by burglars from Harrowsmith, Ont., on 21st October, 1888	30 00
Post office funds lost in transmission from Hilton, Ont., to the Post Office Inspector at Kingston	13 50
Post office funds lost in transmission from Keene, Ont., to the Bank of Montreal at Ottawa, on 18th October, 1888	\$ ets. 59 75
Post office funds lost in transmission from L'Amable, Ont., to the Bank of Montreal at Ottawa, on 18th October, 1888.	70 00
Postage stamps stolen by burglars from Martintown, Ont., on 27th October, 1888	60 00
Post office funds lost in transmission from Mount Brydges, Ont., to the Bank of Montreal at Ottawa, on 13th December, 1888	40 00
Post office funds stolen by burglars from Norwood, Ont., on 10th December, 1887	23 96
Postage stamps and post office funds stolen by burglars from Orono, Ont., on 7th October, 1888	87 98
Postage stamps and post office funds stolen by burglars from Pembroke, Ont., on 20th April, 1889; postage stamps \$552.10, cash \$115.80.	667 90
Postage stamps destroyed by fire at Port Maitland, Ont., on 9th January, 1889	4 00
*Post office funds lost in transmission from Sault Ste. Marie, Ont., to the Bank of Montreal, Ottawa, on 2nd November, 1888	417 61
Postage stamps and post office funds stolen by burglars from Smith's Falls, Ont., on 13th October, 1888.	419 30
Loss on counterfeit bank note taken in Province of Ontario	2 00
Post office funds lost in transmission from Vienna, Ont., to the Bank of Montreal, Ottawa, on 3rd December, 1888	675 00
Post office funds lost in transmission from Warkworth, Ont., to the Bank of Montreal, Ottawa, on 18th October, 1888	290 00
Money paid by the Postmaster to Ex-Postmaster at West Huntingdon, Ont., through mis- understanding on the 7th January, 1887	3 00

STATEMENT showing losses sustained in collecting Postal Revenue, &c.—Con'd.

Allowance for postage stamps and portion of cash stolen by burglars from Whitby, Ont., on 11th January, 1889.	396 02
Postage stamps lost through error of late clerk at Windsor, Ont., in December, 1885	8 09
Postage stamps destroyed by fire at Zimmerman, Ont., on 18th May, 1889	20 00
Postage stamps stolen by burglars from Denisons Mills, Que., on 14th December, 1888	20 00
Postage stamps stolen by burglars from the sub-office at Notre Dame de Lévis, Que., on 10th May, 1887.	′ 88 92
Postage stamps destroyed by fire at St. Jean Baptiste de Rouville, Que., on 9th October, 1888.	50 00
Postage stamps stolen by burglars from Annapolis, N.S., on 27th May, 1886, (\$112.41 of this amount having been deposited to balance of Postmaster's current account, and the difference, \$15.30, remitted directly to the Postmaster)	127 71
Postage stamps destroyed and Post office funds stolen by burglars at Aylesford, N.S., on 31st July, 1888, postage stamps, \$10.28; cash \$24.81	35 09
Postage stamps destroyed by fire at Rawdon Gold Mines, N.S., 11th June, 1888.	30 75
Post office funds stolen by burglars from Campbellton, N.B., in September, 1882	106 17
Loss on Maritime Bank Bills taken at Grand Falls, N.B., on Money Order Account in March, 1887	14 00
Difference in balance of stamps on hand at St. John, N.B., on transfer of office on 10th November, 1886	2 00
Postage stamps destroyed by fire at Brandon, Man., on 13th February, 1889	69 66
Total	\$4,382 47

WILLIAM WHITE, Deputy Postmaster-General.

W. H. SMITHSON,
Accountant.

 * This amount has been recovered since the close of the fiscal year, and will appear in Postmaster General's Report for 1889-90, as a miscellaneous receipt.

REPORT of all cases occurring within the Year ended 30th June, 1889, of abstraction from, or loss of, Letters containing Money, sent through the Post Office in Canada; showing the particulars of each case, and stating the result of the proceedings instituted therein by the Department.

ij

REGISTERED LETTERS.

ss in strion.	Recapit		ಣ	ಣ	NO.	t-
	instituted in each case by the Department.		Stated not to have There being no record of the desbeen received by the patch of this letter from the St. Andrews East Post Office, the Postmaster of that office made good contents.	Postmaster of Vernon having omitted to enter this letter on the Letter Bill of the mail from his office for St. Lawrence & Ottawa Railway Mail Clerk, made good contents.	20 15 Louis Côté & frères St. Hyacinthe Stated to have been Reason for believing that this abreceived without straction was committed by a dishonest clerk in the Melbourne Post Office. Loss made good by the Postmaster of Melbourne. See case No. 19, class I.	No evidence to account for the alleged discrepancy.
Evidence of	Abstraction.		Stated not to have been received by the person addressed.	ပ ွ	Stated to have been received without contents.	op .
Address of Letter.	Place.		:	Montreal	St. Hyacinthe	Whitby
Address	Name.		20 00 Wm. M. Doran Iroquois	75 00 Ward, Carter & Co. Montreal	Louis Côté & frères	5 00 Mrs. G. A. Stafford Whitby
Alleged	Contents.	& cts.	20 00	75 00	20 15	2 00
When	Mailed.	288	July 6	do 13	do 16	do 21
Where Mailed			St. Andrews East	Vernon, Ont	Racine	Fredericton Junction, N.B.
Name of Writer	Name of Writer.		L. Cameron St. Andrews July 6 East	G. M. Donaldson. Vernon, O	3 Louis Belisle	4 G. A. Stafford
2		39	<u></u>	63	<u> </u>	4

I. REGISTERED LETTERS.—Report of all cases occurring within the Year ended 30th June, 1889, of abstraction from, or loss of, Letters containing Money, sent through the Post Office in Canada—Continued.

ulation.	Recapit			∞	ಣ	ಣ	ಬ್	L-	
ni sa ni salu			ers, 4th cut	ters by not cu-	the ce.	the ed. uly nail ter	ith ith of of een een een ce. 19,	the	
Result of Proceedings.	instituted in each case by the Department.	TTI. 1.	Stated not to have the bag containing these letters, been received by made up at Rusagornis on 24th the persons ad- July, '88, for Oromocto, was cut dressed, onen whilst lying at the Waasis	Railway Station, and the letters stolen by a lad named Legee, a minor. Contents made good by the lad's parents. Evidence not of a nature to warrant prosecu-	ton. This letter was mis-delivered at the Powassan Station Fost Office. The person to whom it was mis-	delivered, however, restored the contents to the person addressed. This registered packet was duly entered on Letter Bill of mail from Quebec for Sherbrooke, of 30th July, '88, and the postmaster	₹	No evidence to account for the	formal room to the control of the co
Eyidence of	Abstraction.		Stated not to have been received by the persons addressed.		op	op	Stated to have been received without contents.	op	Stated to have been received without contents.
Letter.	Place.		Hamilton		North Bay	Henry Sherbrooke		Craigvale	& Montreal
Address of Letter.	Name.		John Carr Hamilton R Drysdale Northnort		Benjamin Sweeney North Bay		Mrs. L. Bélanger Racine	R. S. Mann	10 00 Clark, Terroux & Co.
Alleged	Contents.		09 4 70		60 44	29. Gold brooch M m e. value 11 00	10 00	2 00	10 00
When	Mailed.	1888.	July 24	: }	do 26	do 29	do 30	do 17	Aug. 3
	W here Mailed.		Kusagornis		Le Breton Flats.	Chateau Richer	Côte des Neiges.	Queensville	
	Name of Writer.	-	Walter Dunnett Kusagornis.		J. R. Booth Le Breton Flats.	Georgiana L'Heu-Chateau Richer	Louis Bélanger Côte des Neiges.	Susie Mortimer Queensville.	Ernestine Duguay. L'Ayenir
	o N		a 9		<u>-</u>		6	10	#

	٥		ಣ	ಂ	2	3				6		ಣ		ಣ		t-
These abstractions are believed to have been committed by a dishonest employé in the Mel-	Losses made good by Postmaster of Melbourne.	See case No. 19, class I.	Stated not to have This letter was mis-delivered by been received by the a Letter Carrier on the staff of person addressed.	tents were made good by hum. Postmaster of Kingsbury having failed to enter this letter on his Letter Bill for Melbourne, Que,	Only \$45 stated to No, evidence to account for the	nave been received, alleged discrepancy. Stated to have been fris was a decoy letter which was received without orward by I Secret an assist	opticed by 1. Store, an ashace ant in the Melbourne, Que, Post Office, and contents abstracted by him. Marked bills, contained in the letter, which had been	paid out by Scott were obtained and identified, and Scott was arrested, but subsequently suc-	ceeded in escaping from the constable who arrested him. Losses made good by Postmaster of	Embrun Post Office entered by	persons addressed. 1888, and these letters stolen. No clue obtained to perpetrators	There being no record of the despatch of this letter from the	Coboconk Post Office, the Post- master of that office made good contents.	There being no record of the despatch of this letter from the	master of that office made good	Stated to have been No evidence to account for alleged received without discrepancy.
A		do do do do	tated not to have been received by the person addressed.	op op	nly \$45 stated to	nave been received. tated to have been received	contents.			tated not to have	been received by persons addressed.	do do		op op		received without contents.
North Stukely	:	Ulverton		Sherbrooke		Melbourne				Embrun) S	Montreal ∫	Greenwood, Ont.		Ottawa		:
14 00 M. Deschamps North Stukely Only \$4 stated to have been received.	Antoine Blanchard Val Racine	Mrs. L. Walker Ulverton Clendinning & Son Montreal.	John M. Guérin Toronto	C. H. Fletcher	Bank of Toronto Toronto	W. A. Sneath				Dominique Bray	La Presse	Miss Dora McKay. Greenwood, Ont.		R. Sheppard		Citizens Ins. Co Montreal
14 00	3 00	20 00 10 00	20 00	17 25	20 00	3 00				2 00	1 00	5 00		00 9		60 75
∞; ∞	10	15	7.	10	17	21				21	25	24		25		
op	op	do do	qo	qo	op	qo				qo	op	op		op		op op
St. Hyacinthe	Lewiston, Maine	Pt. St. Charles	Montreal	Kingsbury	Strond	Montreal				Gatineau Point	Embrun	Coboconk		Grenville		:
12 J. B. Brodeur St. Hyacinthe	Jos. Blanchard	Mrs. M. Burnie Pt. St. Charles Mrs. D. R. Borland Ulverton	A. Guérin	McLean & Irwin Kingsbury	Wm. Badger					Joseph Lagacé	Theophile Lachap- Embrun	Alex. McKay Coboconk.		T. Hoare		W. H. Garrett Trenton
12 J	13 J	14 15 M	16 A	17 N	18 V	19				20 J	21 T	22 A		23		24

I. Registered Letters.—Report of all cases occurring within the Year ended 30th June, 1889, of abstraction from, or loss of, Letters containing Money, sent through the Post Office in Canada. — Continued.

٦.	ni ssı tulation	Cla Recapir	70	ಸ್ತಾ		7		(ာ	ಣ			1-	œ
	Result of Proceedings	· · · · · · · · · · · · · · · · · · ·	Postmaster of Mattie having neglected to seal the bag in which	72 00 J. H. Gendron Sherbrooke Only \$62 stated to Evidence taken in this case pointed have been received. strongly to the conclusion that this abstraction was committed at the Thettord Mines Post	Office. The Postmaster of that office accordingly made good the loss.	Stated not to have These letters are stated to have been received by heen desnatched from Batoche to		the latter office. Cause of failure not discoverable.	Verona Fost Office entered by burg- lars on night of 15th Sept., 1888,	and this retter storen. Stated to have been despatched from Montreal in registered pack-	age, contained in locked bag for Perth, on 17th Sept., 1888, but to have failed to reach the latter	office. The Postmaster of Perth having failed to make a prompt	W. Norman Bole. New Westmins-Stated to have been No evidence to account for the alter. received without leged discrepancy. Cover of let-	20
Total of the second	Evidence of	Abstraction.	op op	Only \$62 stated to have been received.		Stated not to have	persons addressed.		: op	ob			Stated to have been received without	contents. Stated not to have been received by the person addressed.
	f Letter.	Place.	Antigonishe, N.S.	Sherbrooke		Saskatoon	do		Verona	Perth			New Westminster. B.C.	Smith's Falls
	Address of Letter.	Name.	cts. Antigonishe, N. S	J. H. Gendron		Const. Shepherd Saskatoon	A. McLean		1 00 Miss C. Bedour Verona	W. A. Meighen Perth			W. Norman Bole	E. Gaston
	Alleged	Contents.	\$ cts.	72 00		57 35	1 00			8 50			50 00	40 00
	When	Mailed.	1888. Aug. 31	do		lbert Sept. 11	do 12		do 11	do 17			do 23	do 25
	Whome Meiled	Wilere Maneu.	Mattie, N. S	Thetford Mines		Prince Albert	ор		Sharbot Lake	Montreal			Asheroft Stat'n,	Newaygo, Mich.
	Massa of West	rame of writer.	David de Coste Mattie, N. S Aug. 31	Adelard Lacasse Thetford		A. B. Perry	A. Sproat		Jno. W. Reynolds. Sharbot	B. J. Kirkkouse Montreal			Capt. J. Martley Ashcroft	Robert Gaston Newaygo
	×		25	58	242	27	- 82		62	30			댦	32

		6	L-	2	t-	ಣ	¢1	00	
good by Postmaster of Smith's Falls, the addressee having made affidavit that the letter had been called for previous to the date of	Only \$70 stated to No evidence to account for the alhave been received. leged discrepancy. Cover of leteral party measured	To	Z	Z	leged discrepancy.	St	Stated not to have These letters were contained in a been received by registered package stated to have persons addressed. Mail Clerks to Ottawa on 19th Oct., 1388. but to have failed to		mail bag made up at Sault Ste. Marie on Zord November, 1888, for Windsor, Ont., vid Detroit, Mich., which failed to reach the Windsor Office. This bag was found in the woods near Soo Junction, Mich., on the 12th July, 1889; all of the registered
		Stated not to have been received by	persons addressed. Only \$55.15 stated to have been received.	Only \$14 stated to	Wolse- Only \$12.82 stated to have been received.	Stated not to have been received by the person addressed.	Stated not to have been received by persons addressed.	Stated not to have been received by the person addressed.	
	Hardware London, Ont	Montreal	London, Ont	Toronto	Moffat, Wolseley.	Pembroke	Ottawa	St. Pierre Bap- tiste.	Torontodo do do Blaisance, Que
	Hobbs Hardware Co.	Davis, Lawrence & Montreal Co.	A. Robinson	John D. Ivey & Co. Toronto	Joseph Marlin	R. Miller	Bk. of Montreal. Ottawa	Napoléon Demers.	0 33 Barber & Ellis Toronto 24 02 Bank of Montreal do 15 00 Patton & Co do 4 00 Mrs. Lascelles Plaisance, Que 25 00 Mrs. M. J. Clarke, Blantyre
	75 00	1 00	65 15	19 00	17 82	9 9	95 00 70 00 70 00 59 75 290 00	32 25	0 33 1 10 30 524 02 1 15 00 1 4 00 1
	25	27	i.	5	تن		17		
	op	op	Oct.	op	ор	ор	9999	op	Nov. do do do do
	Hepworth Stat'n	Clarke	Hepworth Stat'n	Wingham.	Anthracite	Nipissing	Bancroft. L'Amable Keene Warkworth	Montreal	Sault Ste. Marie. Nov. do
	Mrs. Susan Vance. Hepworth Stat'n	Dr. Leitch C	Mrs. Susan Vance. Hepworth Stat'n Oct.	Gordon & McIn-Wingham	Jarrick	Mrs. Samuel Car- Nipissing son.	The PostmasterE	Mrs. C. Lippe	E. Biggings
	33	34	35	36	37	80	8 9 4 5 5	54	444444

Class in Recapitors. I. Registered Letters.—Report of all cases occurring within the Year ended 30th June, 1889, of abstraction from, proper precaution had not been exercised in the treatment of this letters contained in the bag were rifled with the exception of one master, Sault Ste. Marie, to Bank Only \$14 stated to Evidence in this case showed that etter at the Sincoe and Jarvis not to have Stolen by a servant in the employ of Montreal, Ottawa, which was Post Offices. The loss was therefore made good by the Postmasof the Postmaster of St. Félix Merelisse tiary. Contents made good by This letter is stated to have been Moncton Railway Mail Clerks mis-sent by the latter found to have been opened and containing \$417.61 sent by Post-Godin, who was tried and sentenced to 5 years in the peniten-Postmaster, St. Felix de Valois. to Truro and Pictou Railway Mail Clerks on 28th Nov., 1888, and is believed to have been Clerks. Contents made good by the Clerk in charge on the occasinstituted in each case by the to No evidence to account for ters of these offices jointly. by Halifax Result of Proceedings (See Case No. 78, Class I.) de Valois, named Department. alleged discrepancy. Letters containing Money, sent through the Post Office in Canada.—Continued. found intact. transferred been received by the have been received. Only \$5 stated to have been received. have been received. person addressed. \$12 stated Evidence or Abstraction. Loss of do Stated de. Miss Jane Munroe. Brookland, N.S. Collingwood Peoples Milling Co. Meaford..... Jas. McLaughlan.. Owen Sound. Griffith, Ont... Dunblane ... Félix Place. Waldemar Address of Letter. Jarvis.. Mrs. Robt. Burke. Mrs. Thos. Joyce. W. A. Copeland. J. Parks.... Joseph Mayer. John Fraser.. 8888 22 00 00 9 19 00 8 5 00 Contents. Alleged 88838 25 _: G When Mailed. 26.1888. Nov. qo qo do do qo qo qo qo Miss A. B. Munroe Boston, Mass. ... Where Mailed. Montreal... Mrs. E. A. Hatton Arnprior. loss of. දිදිදිදි Simcoe.. Toronto Name of Writer. Mrs. Hollinstead... W. R. Cunningham H. Nelson, jun... Thos. Vivian. ... Miss Edgar.... A. Goyer.... 55 99 5225 54 22 28 244

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H	Stated not to have The mail in which these letters were been received by the contained, despatched from Lonpersons addressed. John The Mail of the Contained o	discoverable. There being no record of the despatch of this letter from the Barnsley Post Office, the Postmaster of that office made good	Contrectors. Camp in the Davenport Post Office, by a youth named Walter Camp in the employ of the Postmaster, who was tried for the offence and sentenced to 3 years in the Reformatory Prison at Penetanguishene, contents made good by Postmaster of Davenport.	we been without Abstraction committed by a youth without access to the correspondence passing through the Charlottetown Post Office. Contents recovered.	Stated not to have Evidence showed that this letter been received by was lost or mislaid in the Toronto the person ad- Post Office. Contents made good dressed. Post Office. Contents made good dressed. Post Office through whose hands the letter should have passed, but who was unable to account for it.	Only \$20 stated to Circumstances pointed to the conhave been received. Committed in the Rathburn Post Office, the management of which was most unsatisfactory. Post-naster removed,
Stated not to have been received by the person addressed.	Stated not to have been received by the persons addressed.	op		Scated to have been received without contents.	Stated not to have been received by the person ad- dressed.	Only \$20 stated to have been received.
Kinlough	Ottawa	Winnipeg	Fairbank	Montreal	Beaverton	Rathburn
10 00 John Young Kimlough	$\left. ight\}$ Bank of Montreal Ottawa.	Mrs. Wm. McGee. Winnipeg	Miss K.M. Lennon Fairbank Family Herald and	Star Montreal.	Walter Bennister. Beaverton	John Smith Rathburn
10 00	40 00	30 00	0 0 0 0		4 00	55 00
28.	ee ee	7:	12		18.	19.
op	Dec.	op .	op op		ор	စု
Kinloss	LondonMount Brydges.	Barnsley, Man.	Greenwood		Glenarm	Wyanett, Ill
59 John Armstrong. Kinloss	Po. Office Inspector London The Postmaster Mount Brydges.	Wm. Magee	Miss H. Lennon. Greenwood. Greenwood. Greenwood.		W. J. Rickaby	Benjamin Smith Wyanett, II
20	60 H 61 T	62 1	63 1		65	99

I. Registered Letters.—Report of all cases occuring within the Year ending 30th June, 1889, of abstraction from, or loss of, Letters containing Money, sent through the Post Office in Canada.—Continued

ass in strion.	Recall		ಣ	က	ಣ	c 2	ಣ	10
Result of Proceedings instituted in each case by the	Department.	·	Stated not to have There being no record of the despenneceived by the patch of this letter from the St. persons addressed. John Suburb's Post Office, the Postmaster of that office made	Contained in a mail bag lost whilst in charge of courier on Arthur & in Charles of Courier on Arthur & in Charles of Courier on Arthur & in Carles of Courier of Cour	of letter made good by the mail contractor for route in question. This letter was mis-delivered at the Party Sound Post Office. Con- tents subsequently recovered	Stated not to have Contained in mail package deben received by spatched from Lakefield to the persons ad- Toronto on 27th Dec., 1888, dressed.	Evidence pointed to the conclusion that this letter had disappeared in the Macdonald Post Office. Contents made good by Postmaster of that office.	Thomas Roy East Broughton. Only \$46 stated to Evidence in this case pointed have been received. the letter had been tampered with at the Theford Mines Post Office. Deficiency made good by Postmaster of that of fice. See case No. 110.
Evidence of Loss or	Abstraction.		Stated not to have been received by the persons addressed.	ор	op	Stated not to have been received by the persons addressed.	op	Only \$46 stated to have been received.
Letter.	Place.		:	Arthur	Perry Sound	Brantford	Macdonald	East Broughton.
Address of Letter.	Name.		3 00 John Dougall & Son Montreal	A. Erb Arthur	Robert A. Laurie Perry Sound	Wm. Buck Brantford Barrow, Stewart & Hamilton	Mrs.G.R. Hambley Macdonald	Thomas Roy
Alleged Contents.		& cts.	3 00	6 72	00 8	7 25 22 13	3 00	26 00
When Mailed.		1888.	burb, Dec. 21	do 22	do 24	do 27	do 31	1889 Jan. 2 .
Where Mailed.			St. John Suburb.	Orangeville	McKellar	Lakefield	Trenton	Thetford Mines, Jan.
Name of Writer.			Mrs. M. Edwards, St. John Sul	Singer M'f'g. Co. Orangeville.	Thomas McGee McKellar.	David Arnott Lakefield	John McIrvy	Eusèbe Fugère Thetford M
No.			67 N	89	69 946	70 T	72	73

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Stated not to have these cases it was shown that at the persons addressed. The Postmaster, addressed. The Postmaster, acknowledging his responsibility in the matter, made good contents.	Felix de Stated not to have Stolen by a servant in the employ been received by of the Postmaster of St. Félix the person address- de Valois named Merelisse Godin ed. 5 years in Pentlentiary. Contents made good by Postmaster of St. Félix de Valois. See case klim	Whitby Post Office entered by burglars on the morning of 11th Jan., 1889, and these letters stolen.	Only \$40 stated to No evidence to account for the alhave been received. leged discrepancy.	Stated not to have Evidence in the case pointed to been received by the conclusion that the letter distribute person addressed. The person addressed and the conclusion that the letter distribute of a mail clerk on the C. T. Railway running between Montreal and Kingston. Contents made good by clerk in question.	Stated not to have Stated to have been despatched in been received by mail from La Baie to Sorel of 28rd the persons addres- January, 1884, but to have failed sed. To reach the latter office. Frankhat point letter disappeared, though a dishonest postmaster on the route was subsequently arrested, tried and sentenced for letter stealing. See No. 151.	15 00 Wm. Page Whitewood St'n. Only \$11 stated to No evidence to account for the alhave been received. leged discrepancy.
	Stated not to have been received by the person addressed.	e		Stated not to have been received by the person ad- dressed.	Stated not to have been received by the persons addres- sed.	Only \$11 stated to have been received.
James Bowie Almonte A. Menzie do Mc Donnell & do do Fraser do Mrs. J. Woodward do	St. Glen	Western Bank Port Ferry. Emma Southwell. Whitby W. H. Buell. do do do Greenwood Oat. Greenwood meal Milling Co. W. Burton.	D. McCall & Co Toronto	4869	ils Sorel	Whitewood St'n.
					19 00 Beauchemin & Fils Sorel	Wm. Page
17 00 27 70 27 00 9 00	13 00 40 00 16 00 16 00	- 91 83 83 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	00 09	8 +	19 00	15 00
10 10 10 10 IO	9		15			25.
do do do		999999 9	do	g 	ор	do
Sheenboro' McLaren's Depot Sheedy Rossport	St. Michel des Saints.	do St. Mary's Teeterville. Navan. Norwood	Burgoyne	Wakenen	St. Monique de Nicolet.	Whitewood St'n.
M. HayesSheenboro'. Martin SheedySheedy John HamptonRossport	: : : :	W. Betth W. Hefanton Maggie Taylor W. Hessin Jas. Cotton W. H. Tucker M. Gleeson		I. D. Armstrong Wakenend	Edmond Trudel St. Monique de Nicolet.	91 Isaac Mick Whitewood
455 F		≅8888888	8 8 7	ĉ	06	91

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June, 1889, of abstraction from, or Canada—Continued.	Result of Proceedings		sts. 10 00 Mrs. J. P. Duffy Byrnes' Road 39. Stated not to have The registration of this letter was been received by dropped at the Charlottetown the person addres- Post Office. Contents made good sed. by the clerk responsible for the	irregularity. Regisfration of this letter was dropped by a railway mail clerk on Trenton and Coe Hill Mines route. Contents made good by	Z	contents. Only \$17.20 stated to No evidence to account for the alhave been received. leged discrepancy.	Bear River Sta-Stated not to have Stolen by a youth who had obtained tion, P.E.I. been received by accessto the correspondence passet the person addressing through the Charlottetown seek page 1. Post Office. Contents recovered.	Stated to have been No evidence to account for the al- received without leged discrepancy. contents to have Findama that this letter was des-	patched from the Chandiere Curve Post Office not sufficient. Contents made good by Postmaster of that office	These letters were stolen from the Welfville Post Office by a youth who left the country before he could be apprehended. Contents	Miss M. Sheppard, Burlington, Ont. Stated to have been No evidence to account for the alcecived without leged discrepancy.
Report of all cases occurring within the Year ended 30th June, 1889, of abstacters containing Money, sent through the Post Office in Canada—Continued.	Evidence of	Abstraction.	Stated not to have been received by the person addressed.	op	Stated to have been received without		Stated not to have been received by the person addressed.				Stated to have been received without contents.
the Year end gh the Post (f Letter.	Place.	Byrnes' Road 39.	West Hunting-don.	Montreal	London, Ont	Bear River Sta- tion, P.E.I.	Kimball		Wolfville, N.S	Burlington, Ont.
Report of all cases occurring within the Year ended 30th Letters containing Money, sent through the Post Office in C	Address of Letter.	Name.	Mrs. J. P. Duffy	Mrs. E. McInroy.	10 00 Heney & Lacroix Montreal	W. H. Lipsey London, Ont	L. McDonald	7 00 Wm. Mathieson Kimball	Trees to Trees	E. M. McLeod Miss A. Ingraham. J. J. Wallace	Miss M. Sheppard.
cases occu	Alleged	Contents.	# cts.	25 00 1	10 00 1	-		7 00 10 00		13 00 20 00 10 00	30 00
t of all	When	Mailed.	1889. an. 29	eb. 7	do 12			do 16		do 18 do 19 do 20	do 25
LETTERS.—Repor loss of, Letters	Where Mailed		Embden, Maine. J	Coe Hill Mines. Feb.	Quyon	Hepworth	PEI	Gurve		Brooklyn, N.S N. Sydney, N.S. West Grove, N.S.	:
REGISTERED LE	Name of Writer		Jas. P. Duffy Embden, Maine. Jan. 29	Andrew McInroy Coe Hill M	D. Cadieux	John Blyt	W. H. rough.	John A. Allan Wallacebur Michel Lemieux Chandière		Ella McLeod J. W. Ingraham M. A. Wallace	Neil McLean Aberdeen
	Z		85	g 2	5 48	95		<u> </u>		100	102

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Stated not to have Pembroke Post Office entered by been received by burglars on night of 20th April, the person addres- 1889, and this letter stolen.	Stated not to have Circumstances and final result the been received by same as in cases 74-77.	Set. Stated to have been Evidence pointed to the conclusion received without that the letter was tampered contents. Office. Contents made good by	No evidence to account for the alleged disappearance of contents.	Montreal do No evidence to account for the alleged discrepancy. St. Pierre Brou-Only & Stated to have Evidence pointed strongly to the	conclision that thus letter was tampered with at the Thefford Mines Post Office. Loss made good by Postnaster at that office.	Stated not to have This letter is believed to have been been received by the stolen by a dishonest assistant at person addressed. the St. Hyacinthe Post Office, who was subsequently convicted.	of unlawfully opening certain letters passing through that office, and sentenced to 1 month's im- prisonment. Contents made good by Postmaster of St. Hya- cinche.	These abstractions are believed to	have been committed by a dis- honest assistant at the St. Luce Station Post Office who was arrested but acquitted on trial.	Losses made good out of the stolen money discovered where the culprit had secreted it.	been to have These letters were stolen by Wm. been received by the Wilton, a mail carrier on Becan- person addressed, own Station and Inverness route, who was tried and sentenced to 3 won was tried and sentenced to	made good by contractor for service in question.
		Stated to have been received without contents.		do Only &6 stated to have	been received.	Stated not to have been received by the person addressed.		Stated to have	<u> </u>	Celvea. Only \$5 stated to have been recei-		
. Pembroke	Ottawa		St. Hyacinthe	Montreal St. Pierre Brou	guron.	Montreal		Fleuriau, Que	St. Donat	Quebec	Miss E. R. Plum-Glenloyd, Que mer. J. WattsInverness, Que	
10 00 Pierre Beaupre Pembroke	". Free Press" Ottawa D. Craig Dunrobin. J. Coursolle & Co Ottawa	W. R. Henderson. Henderson tlement.	Siméon Lawrence, St. Hyacinthe.	H. Lamontagne Montreal Xavier Paré St. Pierre Bro	í	T. Berthiaume		Miss Sophie Ross. Fleuriau, Que	Ernest Desgagne. St. Donat. Rev. J. A. Lebanc. Fleuriau, Que Talbot & Parent. Kimouski	Wm. McLinnont & Quebec	Miss E. R. Plummer. J. Watts	
10 00	0 75 5 00 25 00	25 00	2 00	11 00		16 00		25 00	20 00 10 00 40 44	15 00	15 00	
2	٣. ت. ت.		6	6		∞. 	STORE FOR	10	19.	19	16	
op	Mar. do do	op		op op		op			දි දි දි	op	op op	
Bois Franc	Almonte	Wallace Ridge, N. S.	Somerset, Que	Ste. Therese de Blainville. Thetford Mines		St. Hyacinthe		Indian River, Mich.	Sudbury Bic St Donat	ор	Manchester, N. H do	
Bois Franc.	W. McFarlane Mrs. S. Metcalfe W. H. Stafford	Jno. A. Waugh	Jean Rowe	Jos. Cousineau Eusèbe Fugère		F. A. Gravel			Mrs. V. Desgagne, Sudbury. Rev. M. Carboneau Bic The Postmaster St. Donat	ор	Miss Plummer Manchester, N. H. Miss S. J. Watts do	
103	105	107	108	109		E 249		112	1114	116	117	

I. Registered Letters.—Report of all cases occurring within the Year ended 30th June, 1889, of abstraction from, or loss of, Letters containing Money, sent through the Post Office in Canada—Continued.

11					
Class in Recapitulation.	7 22	6			6
Result of Proceedings instituted in each case by the Department.	ZA	4 1	oy ourgans on ingue April, 1889 and this letter alleged discrepancy. No evidence to account alleged discrepancy.		Stated not to have Pembroke Post Office entered by been received burglars on morning of 20th, by persons ad-April, 1889, and these letters stolen.
Evidence of Loss or Abstraction.	Only \$20 stated to have been received. Stated to have been received contents.	Only \$10 stated to have been received. Stated not to have	Deen received by the person addressed. Stated to have been received without contents. Stated to have been received without contents.		Stated not to have been received by persons adressed.
Letter. Place.	Charlottetown, P.E.I. Montreal	Montreal Pembroke	Hull	Pembroke do	000000000000000000000000000000000000000
Address of Letter. Name.	cts. 30 00 Ritchie Bros 4 00 Fabre & Gravel	 20 00 Mrs. J. L. Duggan Montreal 10 00 J. B. Labelle Pembroke. 	Mrs. Virg. Hamel. Hull	Auguste Frederick Pembroke Miss J. McCarthy Jos Berthiaume. do R. C. Millar. R. C. Millar. Go Millar. Deacon, Delahay & Deacon. W. F. Fenton.	Thos. O. Dacre W. Larochelle R. C. Millar Miss B. Jennings.
Alleged Contents.	\$ cts.	20 00	15 00 00	232 00 10 00 10 00 10 00 10 00 15 00 1 1 00 1 00	12 00 10 00 20 00 1 00 100 00
When Mailed.	1889. E.I., Mar. 22	do 30	(c do 18	do 15 do 17 do 17 do 17 do 17 do 17 do 18	66666666666666666666666666666666666666
Where Mailed.	Kinkora, P.E.L St. Hyacinthe	Chatham, Ont	McCormick Victoria Harbor	Eganville. Farrelton. Springfield, Mass Bissett's Creek. Deux Riviérés. Rockingham. Beachburg. Dacre.	Mattawa Mackey Station. do Sheenboro'
Name of Writer.	119 Patrick Mulligan Kinkora, P. 120 Jos. Mailloux St. Hyacin	J. L. Duggan	Mrs. J. Robertson. McCormick	F. Pilatsky. F. E. Savarin Colin McCrae. Mrs. Cowdry. Wm. Jessup. Francis Smith Alfred Morrow A. Shouldice.	
No.	119	250 EZI 250	123	125 126 127 128 128 129 129 129 129 129 129 129 129 129 129	

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	Lyngue in this case pointed to the conclusion that this letter was not despatched from the Orwell Post Office. Contents made good by Postmaster at Orwell	Stated to have been despatched in mail from La Baie to Sorel of 18th April, 1889, but to have failed to reach latter office. Though no evidence could be obtained at the time as to how the letter disappeared, a dishonest Postmaster on the route was subsequently arrested, tried and sentenced for stealing a post letter. (See case	Stated to have been despatched by Stated to have been despatched by Ottawa and Port Arthur clerks to Montreal and Three Rivers clerks, but to have failed to reach the latter clerks.	Registration of this letter was dropped by a Railway Mail Clerk on the Canada Altantic Railway	Stated to have been despatched from Edmundston to River du Loup on the 22nd April, 1889, but to have failed to reach the latter office.	Only \$10 stated to No evidence to account for the have been received. alleged discrepancy.	Stated not to have Destroyed on the occasion of the been received by railway accident, which occurred persons address: on the Grand Trunk Railway on ed. 28th April, 1888, at the "Junction Cut" near Hamilton.
	op Op	ор	ор	ор	·· op	Only \$10 stated to have been received.	Stated not to have been received by persons addressed.
do do do do do Snake River Allumette Island Doyle Pembroke do	· Montreal	Sorel	Ste. Cecile du Bic	Montreal	River du Loup	Smith's Falls	do
"Observer" do Godfrey Schmidt. do J. P. Bostwick. do J. P. Bostwick. do Godfrey Stroke. God Godfrey Stroke. Stroke Brown. Snake River. J. Cox. Allumette Island Michael Doyle. B. J. Dowsley Pembroke A. Irving. do Godfrey. Godfrey J. J. Kring. Godfrey Godf	Family neraid	C. Labelle	J. B. Lafrance, sr. Ste. Cecile du Bic	Mrs. Friedman Montreal	J. A. Jarvis River du Loup	Frost & Wood Smith's Falls Household Ladies Toronto	27 2 gold watch P. W. Ellis
104 e	3	50 00	10 00	37 00	10 00	12 00	2 gold watch cases value \$50. Gold cuff buttons value \$4
**************************************	₁₀	17	18	20	22.	27	27
000000000000000000000000000000000000000	op	op	op	op	op	op do	op op
Haley's Station. Douglas. Osceola. Westmeath. do. Douglas. Ottawa. Pembroke. Cobden. Buckingham.	Orwell, F. E. L.	St. Zephirin	Chapleau	Apple Hill	Belleffeur, N.B.	Gooderham	op op
Richd. Humphries. Haley's Station. Levi Beach. Douglas. A. & W. Reid. O. Akesson. Douglas. Outlawa. A. J. Brown. John Delshay. Buckingham.		O. Lemaire	J. B. Lafrance, jr.	P. Silverstone	A. De Villers	S. Kettle	157 John Murchisson
139 041 141 142 143 144 145 144 144 144 144 144 144 144 144	OCT OCT	돌 251	152	153	154	155	157

I. Registered Letters.—Report of all cases occurring within the Year ended 30th June, 1889, of abstraction from or loss of, Letters containing Money, sent through the Post Office in Canada—Continued.

Class in Recapitulation.	10
Result of Proceedings instituted in each case by the Department.	Stated not to have Destroyed on the occasion of the been received by persons address- on the Grand Trunk Railway on ed. 28th April, 1889, at the ', Junction Cut" near Hamilton."
Evidence of Loss or Abstraction.	Stated not to have been received by persons addressed.
f Letter.	Meek. Kingston T. Bain & Co. Toronto. D. Cameron. Hamilton. rs. F. Day do cod & Legatt. do C. Moore D. Cameren S. Bruce & Co. Toronto do W. Ellis. do Graham. G. Nicholson H. Mortimer. do Graham. G. Nicholson J. Dally & Co. Hamilton J. Dexter. Go Dexter. Go McKellar J. Bail & Co. Toronto Graham. Montreal J. Dally & Co. Go Dexter. Go Dexter. Go S. Kimball. Montreal Boson & Colte. Toronto do S. Kimball. Montreal Dexter. Go According do According
Address of Letter. Name. Pl	日
Alleged Contents.	\$ cts. 1 25 00 1 10 00 10 00 10 00 20 00 00 10 00 20 00 00 10 00 20 00 10 00 20 00 10 00 4 00 10 00 20 00 10 00 20 00 10 00 20 00 10 00 20 00 10 00 20 00 10 00 20 00 10 00 20 00 10 00 20 00 20 00 20 00 10 00 20 00 20 00 20 00 10 00 20 00
When Mailed.	4 Pp
Where Mailed.	15 <u>45</u> 46 46
Name of Writer.	W. Rosebrugh. C. Everingham John Murray F. Day Woodslee F. Day Woodslee F. Day Woodslee C. Elliott. S. Moore W. H. Moss Geo. A. King W. H. Moss Geo. A. King W. J. & J. Steven E. Martyn Son Son Son C. Shirth Son E. Martyn Dickinson, Nichol London Son C. Caraham J. Hobs Dickinson, Nichol London Son C. Chatham J. Hobs D. Spencer C. Sanich Spencer B. Martyn C. Chatham J. Hobs C. Sanich C. Bagle C. Carabrook C. Bagle C. Bagle C. Carabrook C. Bagle C. Bagle C. Carabrook C. Bagle C. Carabrook C. Bagle C. Bagle C. Carabrook C. Bagle C. Bagle C. Carabrook C. Bagle C. Carabrook C. Bagle C. Bagle C. Carabrook C. Bagle C. Bagle C. Carabrook C. Bagle C. Bagle C. Bagle C. Manley M. K. Detwiller Mallace M. K. Detwiller Mallace Mallace M. K. Detwiller Mallace M. K. Detwiller Mallace M. K. Detwiller M. K. Detwiller
No.	

24	63	t- t-	t- t	t- 0	b
Stated to have been despatched in mail from Sudbury to Sault Ste. Marie, of 4th May, 1889, but Marie, of 4th May, aske, but have feiled to reach latter.	Office. Contained in a registered package made up at Hull for Ottawa, on 6th May, 1889, of which all sub-	Only \$25.10 stated to No evidence to account for the have been received. alleged discrepancy. do not not not not not not not not not no		do do do The how in which these letters were	despatched to Sackville, N.B., by the Moncton and Campbellton Railway mail clerks on 30th May, 11889, was ripped open at the Sackville Railway Station, and the letters stolen by two boys, who had been improperly permitted by the contractor forthe Sackville and Railway Station service to receive the bag from the postal car and take charge of it until he called for it. These lads were arrested, but admitted to bail, and fled the country. Contents made good by contractor for the service in question.
ob	op op	Only \$25.10 stated to have been received. Only \$40 stated to	have been received. Only \$30 stated to have been received.	Only \$8 stated to have been received.	Stated not to have been received by the persons addressed.
kridge Hamilton. te. Toronto & Car-Hillsburg fros. Toronto ing Co do cGlash-do cGlash-do cGlash.do cGlash.do cGlash.do cGlash.do ko do virden. ris. Toronto do virden. Sault Ste. Marie	McGuire	Sorel do do	do	Guelph	Upper Sackville, N.B. Sackville, N.B.
Canon Mockridge. Hamilton. Wm. Rennie. Donaldson & Carmichael. Shepherd Bros. News Perinting Codo Wm. Briggs. Canada Life Ass'n. Canada Life Ass'	T. McGuire. Maynooth "Commercial Advertiser". Detroit, Mich J. O. Beaupré Malone, N.Y Dille. V. Chretien Sorel	Dme. H. Gullotte. Sorel Montreal Bank Ottawa Thomas Story do	Bank of Montreal.	P. J. Thomson Guelph	19 00 John Fawcett Upper Sackville, N.B. 7 00 Miss F. Smallwood Sackville, N.B.
1 00 1 10 1 10		25 45 80 00		18 00	19 00
2 22 2222 2222 2222 22 22 22 22 22 22 2	-::::	::::			30.30
$\begin{array}{c} \mathbf{d} \\ $	May 6 do do	do May 8 do 13	do 15	do 24	
gg:		do Sunderland Pembroke		Uptergrove	Weldford, N. B. May St. Hyacinthe, Q. do
A. Johnson Zurich Mrs. Jas. Arm. St. Mary. strong St. Mary. Jos. Lawson Burnham, Mrs. Mrs. McGranger Dresden do do do do Son. Centralia Son. Centralia Daniel French Elimville Wm. Miners Elimville Thos. Andrews Clinton W. Granger Blyth G. H. King Sudbury		Henri Guillote The Postmaster A. McCormack		F. Thomson	
180 190 191 192 193 194 198 198 198 198 200 200 201	203 204 205 204 205 205 205 205 205 205 205 205 205 205	508 508 53 53	210	112	212 213

I. Registered Letters.—Report of all cases occurring within the Year ended 30th June, 1889, of abstraction from, or loss of, Letters containing Money, sent through the Post Office in Canada—Cintinued.

ni ss.	siO hqsə9A		2	<u>-</u>	7	67				0			
Result of Proceedings			Mrs. G. Knight St. Hyacinthe Only \$22 stated to No evidence to account for the	\sim		20	ston of 8th June, 1889, but to have failed to reach the latter	ошсе.	Chh. on D Doct Office	Simple and the properties of the 10th June, 1889, and these letters stolen.		,	
Evidence of	Abstraction.		Only \$22 stated to	Only \$20 stated to have been received.	Only \$95 stated to	Stated not to (ceived by the persons ad-	dressed.		op			
f Letter.	Place.		St. Hyacinthe		Brockville	Merrillon, Wis	Toronto	Halifaxdo do Middleton.	Halifax do do do Lower Stewiacke		doboit.	Upper Nine Mile River.	Middle Musquo- doboit.
Address of Letter.	Name.		Mrs. G. Knight	Wyld, Grassett & Toronto	T. Gilmour & Co Brockville	Dr. S. McBride Merrillon,	Stone & Wellington Toronto	Payzant & King Halifax M. H. Ruggles do Miller Bros Middleton Mrs. Robt. Phillips Shubenacadie	J. E. Roy & Co Clayton & Sons The Postmaster James Fisher	Charles Stark Baldwin & Co Moir, Son & Co J. Stewart	watch Miss F. E. Cochran Maitland	2 silver brood Mrs. Jno. Wright.	Daniel Reid Middle Musquo-
Alleged	Contents.	e cts.	27 00	30 00	100 00	2 03	2 00	100 00 35 00 15 00 15 00	90 00 00 00 00 00 00 00 00 00 00 00 00 0	12 74 10 34 92 17	10. Gold watch	2 silver broo-	ear-drop. 98 21
When	Mailed.	1889.	do 14	June 5	do 6	do 8	do 8	do 6 do 7 do 7	66666 66666	do 10 do 10 do 10	do 10	do 10	do 10
When Mailed	Wild Atalieu.		Toronto	Waubashene	Lyndhurst	Perth Road	ор	Harrigan Cove Ecum Secum, NS do do East Orrington,	Maine. Salmon River do Little River do	Midale Musquo- doboit. do Halifax	St. John, N.B	Lower Stewiacke	Truro
Nomo of Writer	Traine of Willel.		G. Knight	H. F. Ames	Moulton & Mackay Lyndhurst.	Mrs. J. Bolton Perth Road	John Corkill	Jas. W. McDonald Harrigan Cove Geo. Pye Ecum Secum, NS. Henry Pye do do Jas. Phillips East Orrington,	Maine. Mrs. T. McLellan, Salmon River Rev. R. Smith The Postmaster Little River Sanuel Burns	W. H. Layton doboit. M. H. Layton do do do Eaton, Parsons & Halifax	Beckwith. Mrs. Raymond	Mrs. Dav. Emmett Lower Stewiacke	233 Halifax Banking Truro
	5		214 (215	216		54	220 220 221 221	2224 2224 2225 2236 2236		231	232	233

en							TOWN ALAMA		
	10	70	6	7	2	ಣ	ಣ	ಣ	
This letter was mis-delivered at the Windsor Post Office. The contents were recovered, however,	Mrs. C. T. Alterton Bloomfield N.B. Stated not to have Bloomfield Post Office destroyed been received by by fire on the 19th June, 1889, the person address- and this letter burnt.	These letters were ascertained to have been tampered with at the Chambord Post Office. Losses made good by the Postmaster of that office.	⋖	7.	Make been received. angregancy. Stated not to have Stated to have been despatched been received by from Treadwell, in mail of 18th the persons address. June. 1889, for C. P. R. Clerks	E	under the charge of a Letter Carrier at Toronto, who made good contents. This letter was duly received at the Grenville Post Office, but	the Postmaster of that office being unable to show how it was disposed of made good contents. The Postmaster of Cap St. Ignace having failed to report the non-	receipt of the Letter Bill of the mail from Quebec and River du Loup Mail Clerk, with which this letter is stated to have been despatched to the Cap St. Ignace Post Office, made good contents.
op	Stated not to have been received by the person address-	ed. Only \$10.35 stated to have been re- ceived. Only \$10 stated to have been receiv.	Stated not to have been received by person addressed.	Only \$94.03 stated to	Stated not to have been received. Stated not to have been received by the persons address-	ed.	op	op	
Windsor, Ont	Bloomfield N.B.	Chambord St. Jérôme	Quesnelle Forks, B.C.	Ottawa	Montreal	Toronto	Grenville, Que	Cap St. Ignace.	
5 00 John Ellis Windsor, Ont	Mrs. C. T. Alterton	Alexandre Vallée. Chambord Mme. J. Goudreau. St. Jérôme	Mrs. W. Stephenson.	Bank of Montreal. Ottawa	Messrs. R. Miller, Montreal. Son & Co.	Wheeler & Bain Toronto	Edward Steele Grenville, Que.	M. E. Methot Cap St. Ignace.	
22 00	8 00	15 35	1 43	104 03	59 11	1 73	25 00	89 202 203	
18	19	19	27	18.	18	12	20	30	
op	N.B June 19	op op	ф	op	op	qo	qo	do	
Amherstburg	Woodstock,	Quebec	Toronto	Fordwich	:	Plainfield	Pickford, Mich.	Grande Baie	
34 Mary Ferguson Annherstburg do 18	C. G. Alterton	H. J. Beemer John Goudreau	J. Eaton & Co Toronto	The Postmaster Fordwich.	W. K. Kains Treadwell	Archie Moore	Reuben Steele	Joseph St. Jarre Grande Baie	
34	235	236	238	239	240	255	242	243	

Report of all cases occurring within the Year ended 30th June, 1889, of abstraction from, or loss of, Letters containing Money sent through the Post Office in Canada.

UNREGISTERED LETTERS.

ss in action.	Cla Recapi				-			4		1	4		1	3			
Result of Proceedings	Department.		Mme. Veuve Ber-Quebec Stated not to have No trace, owing to want of registrand.	ob ob			do do do	Believed to have been stolen by	onto Post Office. See Case No.	No trace, owing to want of regis-	Believed to have been stolen by	onto Post Office. See Case No.	No trace, owing to want of regis-	tration. This letter was mis-delivered at the	to a Mr. Joseph N. Grondin, who	trial for misdeneanor, and re- leased on bail, but fled the coun-	try, forfeiting his bail. Contents recovered.
Evidence of	Abstraction.		Stated not to have been received by the	do do	do	; ; op		:	op op	: :	:	do do	•	op			
Letter.	Place.		Quebec	Yarmouth, N. S.	Whitby	Kingston St. John, N. B	Quebec	Toronto	do do	do Lindsay	5	do do	do Quebec	St. Fr. Beauce			
Address of Letter.	Name.		Mme. Veuve Bertrand.	Mutual Relief So- Yarmouth, N. S.	Mrs. E. Frost	Macnee & Munnes. Kingston J. J. Christie & Co. St. John, N. B.	Renaud et Cie Quebec	Dr. McCully	R. Thompson & Co.	Mrs. E. Brunt Mr. Barron	Mrs. Payne	Consumers Gas Co. J. L. Davidson	Jas. McCance do Thos. Aylward Quebec	Joseph Grondin St. Fr. Beauce			
Alleged	Contents.	e cts.	3 00	11 12		30 00	12 43	12 00	288 288	10.00	88		88	25 00			
When	Mailed.	1888.	July 1	do 1	op.	၀၀	တိုင	မှ	ස දිද	do 14	do	၀၀	do 18	do 20			
Whom Weiled	where maned.		Montreal	St. John, N. B	Pembroke		Deschamba	Richibucto, N.B.	Cannington	St. Catharines Gravenhurst	Credit Forks	Toronto	Toronto	La Beauce			
No section of the sec	Traille of Willel.		Mme. E. Bertrand. Montreal	H. V. Barbour	E. Frost	John S. Rolph		D. Hudson	A. C. Campbell Cannington	Mary A. Brunt John Skitch	William Payne	> .	R. Dunlop Kate Aylward	Desiré Rousseau La Beauce.			
7	5		П	2	60	4.70	9 2		01	121			17	18			

53 Victoria.

9	*	4	7.0	7	1	4			7	Т	4	1		-
Stated to have been Believed to have been tampered received without with by Letter Carrier Spence of contents.	Z	do do do Believed to have been stolen by Letter Carriar Spanse of the Toru	onto Post Office. See Case No. 126, Class II. Believed to have been stolen by a dishonest employe at the Melbourne Post Office. Contents	inaue good by Losunascer of Melbourne. See Case No. 19, Class I. No trace, owing to want of registration		Believed to have been stolen by Letter Carrier Spence of the Toronto Post Office. See Case	No trace, owing to want of regis-	tration. do do do do do	Stated to have been No evidence to account for the received without alleged discrepancy.	concenns. Stated not to have No trace, owing to want of regis- been received by tration.	Believed to have been stolen by Letter Carrier Spence of the Toronto Post Office. See Case	Stated to have been No evidence to account for the received without alleged discrepancy.	Z	do do
Stated to have been received without contents.	Stated not to have been received by the		. op	. ор	Stated not to have	been received by person addressed. do do do	do	දි දි දි දි	Stated to have been received without	Stated not to have been received by	person addressed; do do	Stated to have been received without	contents. Stated not to have	person addressed.
		Montreal Owen Sound Toronto	St. Hyacinthe	Craigvale	Spence, Ont	Torontodo	Montreal	Parkdale London Quebec Dorset			Torontodo		:	Dorset
Miss T. Dieterle Toronto	Aggie Allen Stayner	Noël Brodeur Wm. Lewis Mrs. E. Browne	Ledoux & Co	R. S. Mann	Hugh Nelson Spence, Ont Stated	MrsC.M.Hamilton Toronto Miss Lumsden do	Miss Burrowes Montreal	Miss M. Franklin. Parkdale. Jarvis & Hardy. London. A. Laroche. Mrs.C. M. Pamenter Dorset.	L. Quotidien	Marie Williams Little Britain	Mrs. A. Watson Rose Publishing Co Mrs. And. Watson.	H. H. Smith Winnipeg	Alex. McLachlan Shelburne.	4 00 MrsC, M. Pamenter Dorset
200 23	4 00	2 00 2 00 2 00 2 00	17 10	3 00	10 00	10 00 1 00 4 00	90 9	8888		1 00	0 25 0 00 3 00	32 00	3 00	4 00
20	23	888	23	30	2.	66.5	7	10 00 00 0	10	10	12	13	14	16
qo op	qo	999	op	qo	Aug.	do do	qo	2222	op	op	999	qo	op	op
St. Thomas	Barrie	St. Hyacinthe Port Elgin Collingwood	L'Avenir	Newmarket	:	Hamilton do Morrisburg	Montreal	Port Credit Toronto Chateau Richer.	Fenelon Falls	Cambray	Deseronto Niagara Kingston	Rat Portage R'y. Station.	Toronto	:
George Mucklebor-St. Thomas.	Crompton & Co Barrie	And. Willoughby. Port Elgin.	Joseph Gagnon L'Avenir	L. Heacock	Mrs. P. Gregg Rosseau	Mrs. M.G.R. Locke Hamilton Miss K.J. Lumsden do Morrisburg	Miss Blackburn Montreal		Louis Laliberté	Joseph Williams	A. Watson I W. Senior Andrew Watson	Fred. Hemmings. Rat Portage R'y. Station.	Jas. E. Robertson, Toronto	42 Miss Pamenter Riverside,.
19 61	20 C	222 EA	- 75 - 7	1 22 I	26	2828	30 N	32233 3433 3433 3433 3433 3433 3433 343		36	33 V V V V V V V V V V V V V V V V V V	40 F	41 J	42

UNREGISTERED LETTERS—Report of all cases occurring within the year ended 30th June, 1889, of abstraction from or loss of, Letters containing Money, sent through the Post Office in Canada—Continued. II.

Class in Recapitulation.	→		4 -	4 4 1
Results of Proceedings instituted in each case by the Department.	Miss F. Zougg Grimsby Park Stated not to have No trace owing to want of regisbeen received by tration. Mrs. A. Bouron Minden do	tration. do d	Believed to have been stolen by Letter Carrier Spence of the Toronto Post Office. See Case No. 126, Class II.	Believed to have been stolen by Letter Carrier Spence of the Tronto Post Office. See Case No. 126, Class II. No trace owing to want of registration.
Evidence of Loss or Abstraction.	Stated not to have been received by person addressed. do do do do	ද දිදිදිදිදිදිදිදි	do ob	e do
Letter. Place.	F. Zougg Grimsby Park A. Bouron Minden M. Belfry Torento T. H. Grey do	Point Kaye Trenton Hoodstown. Kingston. Fenelon Falls. Toronto Bertie, Ont. Tweed Hoodstown	Toronto	Toronto Aspdin Toronto Brockville Brooklin, Ont
Address of Letter.	Miss F. Zougg Mrs. A. Bouron Miss M. Belfry Mrs. T. H. Grey	Mrs. W. T. Wood- Point Kaye Mrs. Thos. Evans Trenton. R. S. Mann. Hoodstown. Mrs. R. A. Dickson Fenelon Falls. F. D. Worthington Toronto Miss C. Honner. Bertie, Ont. Miss M. Molyneux Tweed. R. S. Mann. Hoodstown	Mrs. D. Morrison. Toronto Miss Himsworth Hull, Que	1 00 I.umbers & Son Toronto
Alleged Contents.	cts.	# 480012888 0 000108889 0 0001088888	1 00	
When Mailed.	1888. Aug. 19 do 19 do 19 do 21	: :::::::: 8 8888888	30	;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
		9 9999999	op op	do do Stn do
Where Mailed.	Toronto Lakefield Shelburne	Torontodo do Craigvale Halitax. Toronto Brantford. Stratford. Stratford. Churchill.	Hamilton	Stratford Rosseau Toronto Pembroke
Name of Writer.	Miss L. Graham Toronto Margaret Bouron . Lakefield J. T. Belfry Shelburne Sarah Phillips Brampton Stat'n	Thos. Woodbridge. Toronto Thomas Evans. M. A. Nightingale Craigvale. R. A. Dickson. Toronto. John Worthington Brantford. Mrs. Horner. Stratford. Mrs. Chas. Stevens Napanee. Jno. King, Sen Churchill.	F. W. Brennan Hamilton	S. T. Beal Stratford 60 George Turner Rosseau Assurance Co. 61 J. D. Smith Pembroke 62 W. A. Kester Cobourg Ry.
No.	8 474	\$ \$\$\$\$5555555 258	57	61 63

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Believed to have been stolen by Letter Carrier Spence of the Toronto Post Office. See Case No. 126, class II. No. 126, class II.	·· op	do do e been stolen by Spence of the	Toronto Post Office. See Case No. 126, Class II. This letter was posted for registration, but the registration having been omitted the Postmaster of	Vancouver made good contents. trace owing to want of regis-	·· op		Letter Carrier Spence of the Toronto Post Office. See Case No. 126, Class II. No trace owing to want of regis.	do ob	Letter Carrier Spence of the Toronto Post Office. See Case	No trace owing to want of regis-	do do Spence of the	Toronto Post Office. See Case No. 126, Class II. No trace owing to want of regis-	∫ op
Believed to have I Letter Carrier S Toronto Post Off No. 126, Class II.	tion. do			Vancouver made good contents. No trace owing to want of registration.		do d		tration.	Letter Carrier Spence of Toronto Post Office. See	No trace owing to	<u> </u>	Toronto Post Off No. 126, Class II. No trace owing to	tration.
: :	:	:::	:	:	:	::::/	: ::::	: :	::	:	: : :	:	:
do do	op	ф ор	ф	op	op	ଚ ଚଚଚଚ	දු දෙද	op op	do do	qo	do do	op	qo
Toronto	Montreal	Ottawa	New Westmin- ster, B.C.	Kingston	St. Hyacinthe	do do Ont Obttawa London, Ont	do do Halifax, N.S.	Montreal	Toronto	Brockville	Montreal Quebec	Victoria, B.C	Minnedosa
00 David Bell Toronto	Montreal Optical Montreal.	M. S. Woodcock Ottawa. Post Office Box 54. Montreal. Miss M. A. Gosling Toronto	Reid & Currie	Rev. Prof. Ross Kingston	Rev. Mère Cather-St. ine du Précieux	Sang. Mrs. F. X. Throuin do William Oliver. L. P. Sylvain. Mrs. Hutchinson. London, Ont	Messrs Taylor Bros do do Detective N. Power Halifax, N.S.	Post Office Box 54. Montreal	Dr. A. Geikie Miss Mary Butler.	Mrs. J. M. Walsh. Brockville	"La Minerve" Montreal Mrs. W. V. Archer Quebec Water Works Dept Toronto	Thos. W. Fletcher. Victoria, B.C	23 00 Mrs. Eagle Minnedosa
113	11	12 00	30 00	8 00	2 00	3 00 10 00 10 00 1 35	288	3 00	13 00 2 00	10 00	9 00 10 00 4 00	120 00	23 00
4 73	6		12	13	13	15 16	17	18	20	22	29.28	30	30
op op	op	do do	qo	do	op .	99999		op op	op op	qo	999	qo	do
Forest	Conestogo	Gananoque Montreal Renfrew	Vancouver, B.C.	Toronto	M. Rivière du Loup.	Montreal Vancouver, B.C. St. Catharines From to By	Station. Uxbridge Toronto Charlotteto	P. K. I. Montreal	Toronto	Port Arthur	Casselman Montreal	Vancouver, B.C.	Bredenbury Stn.
John Guttridge Forest W. J. S. Brown Carberry	W. J. Passmore Conestogo	Miss Kate Maybee Gananoque Joseph Smith Montreal W. Goslin Renfrew	Wm. Beavis		Mlle. Marie M. Pouliot.			Charles Ennis Mrs. Villeneuve	E. C. Hancock	Louis Walsh	G. Martin W. Archer Mrs. Williams	Mr. McDonough	C. Eagle dedenbury Stn. do
63 49	65	99 29 29 29 29 29 29 29 29 29 29 29 29 2	69		77	259 22725		8.88	22.83	84	888	88	68

II. UNREGISTERED LETTERS—Report of all cases occurring within the Year ended 30th June, 1889, of abstraction from, or loss of, Letters containing Money, sent through the Post Office in Canada—Continued.

ecapitulation.	T	4			4	
Class in ecapitulation.						
ceedings case by the ent.	count for the	been tampered Sarrier Spence, st Office. See Ss II.	want of regis- do	::::	do do been stolen by Spence, of the Iffice. See Case Iffice.	op op op
Result of Proceedings instituted in each case by the Department.	stated to No evidence to account for the n received, alleged abstraction.	Stated to have been Believed to have been tampered received without with by Letter Carrier Spence, contents. Case No. 126, Class II.	Stated not to have No trace, owing to want of regisbeen received by the tration. Person addressed. do d	වුදි -	b have Class I Class I wing t	tration. do
	to No	een Be	ave No	::::	Be S	: ::
Evidence of Loss or Abstraction.	nly \$5 stated to have been received.	o have be d with	ated not to have been received by the person addressed.	දුල් දේ	3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 -	op op
Evic LA	Only \$5 have be	Stated to receive content			· ,	
Letter,	t. Roch de Qué-	oronto	fontreal uebec do t. Hyacinthe	St. John, N.B Ottawa do do New Westmin-	ster, B.C. Nottawa. Nottawa. Toronto Montreal Toronto do do do Seaton Village Fergus	M. Lauzon Montreal
Address of Letter. Name.	Mme Moïse God-St. Roch de Qué-Only \$5 bout.	Miss E. Holmes Toronto	Singer MFg Co Montreal Mrs. W. V. Archer Quebec Mrs. J. Murray do do Rev. M. Superièure, St. Hyacinthe	P.S. Brilips St. John, N.B Deputy Minister of Ottawa Marine. Hubert Demers I. Lenace	: : = = : : : : : : : : : : : : : : : :	Mme. Veuve M. Lauzon Belanger. Geo. Graham Montreal Joseph Côte Lévis
Alleged Contents.	\$ cts.		45 00 10 00 15 00 1 25	10 00 6 00 5 00 00 00 00 00 00 00 00 00 00 00 0	888888888	6 00 10 00 2 00
When Mailed.	1888. p. 24	ij	H H W 4	6	8.0.12.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.2.	15
Ma Ma	18 de Sep.	Oct.	අ අදඅ	දිදි දිදි		9 9 9 P
Where Mailed.	Sauveur uébec.	Seaforth,	Joliette Montreal Montreal	Moncton St. John, N.B Lennoxville	Toronto Minden Sherbrooke Stn. Bethany Agnes, Que. Collingwood Mattawa. Mattawa. Renfrew	Montreal Hull
Name of Writer,	Moïse Godbout St.	Mrs. M. Holmes Seaforth	J. L. Lapointe Joliette W. A. Archer Montreal Jacob Murray Tadousac Mme. E. Giffard Montreal	E. M. Estey. W. H. Purdy St. John, N.B Louise Demers Lennoxville A. Balkwill Vancouver. B.C.	Miss J. McLean Toronto J. E. C. Delamere Minden F. A. Hogle. Sherbrooke Rev. J. C. Bell J. A. Kneeland Gollingwood James Page J. Stanley Mistawa G. M. Cadenhead Stanley Mis.	109 Théodule Bélanger Montreal 110 C. E. Graham Hull 111 Rachel Aymong Montreal
, o Z	06		8 838 260	98 88	100 101 102 1104 1106 1106 1106 1106 1106 1106 1106	109

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qo	op	been stolen by Spence, of the Office. See Case I.	ant of r	op op op op	en stolen by ence, of the e. See Case	ant of re	en stoler ence, of e. See (ce, attace, and attace, attace	unt of re	ф ф ф ф	do do do
op	op	Believed to have been stolen by Letter Carrier Spence, of the Toronto Post Office. See Case No. 126, Class II.	No trace, owing to want of regis-	tration. do do do	Believed to have been stolen by Letter Carrier Spence, of the Toronto Post Office. See Case No. 126, Class II.	No trace, owing to want of regis-	Believed to have been stolen by Letter Carrier Spence, of the Toronto Post Office. See Case No. 126, Class II.	These letters were acknowledged to have been stolen by Letter Carrier John Spence, attached to the Toronto Post Office. Spence, having been arraigned on a charge of illegally opening letters, pleaded guilty, and was sentenced to four years in Penitentiary.	Stated not to have No trace, owing to want of regis. been received by the tration.	දිදිදිදි	දිදිදිදි
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op	op	do do	op	99 99 op	do do	op	op op	၀ ၀ ၀	Stated not to have been received by the	persons addressed. do do do do	9999 9
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II. Unregistered Letters—Report of all cases occurring within the Year ending 30th June, 1889, of abstraction from, or loss of, Letters containing Money, sent through the Post Office in Canada—Continued.

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dinos	se by the		entered by of 8th Nov., rs robbed of Postmaster g taken pro- the security	od contents.	do o have been the Dutton	are good by	do ob	::::::::::::::::::::::::::::::::::::::
Result of Proceedings	instituted in each case by the Department.		Milford Post Office entered by burglars on the night of 8th Nov., 1888, and these letters robbed of their contents. The Postmaster of Milford not having taken proper precautions for the security.	Stated not to have No trace, owing to want of regisbeen received by the tration.	Franktown do do do do do do St. Thomas, Ont Only \$2.00 stated to This letter is believed to have been received. The stangered with at the Dutton bave been received.	Miss K. McKinley Fergus Stated not to have No trace, owing to want of regisbeen received by the tration.	do do	සිසිසිසිසිසිසිසිසිසිසිසිසිසිසිසිසිසිසි
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II.—Unregistered Letters—Report of all cases occurring within the Year ended 30th June, 1889, of abstraction from, or loss of, Letters containing Money sent through the Post Office in Canada—Continued.

noitalution	Recapi			က		H 4	H 4
Result of Proceedings	Department.	R. M. Wanzer & Co. Hamilton Stated not to have No trace owing to want of registra-	op op op op	Chis letter was mis-delivered at the St. François Beauce Post Office, to one Joseph N. Grondin, who was arrested and committed for trial for misdemeanor and re-	leased on barl, but who fled the country, forfeiting his bail. Contents recovered. No trace, owing to want of registration	do do do do do Believed to have been stolen by Letter Carrier Atkinson, of the Toronto Post Office. See case	
Evidence of Loss or Abstraction. Stated not to have Not been received by the person adressed		the person adressed do do do do do	qo	Stated not to have No trace, obsenveceived by the registration	person addressed	ф ффф	
Letter.	Place,	Hamilton	Kingston	St. François Beauce	Perth	Montreal do do Galt	Montreal New Liverpool Kingston Toronto
Address of Letter.	Name.	R. M. Wanzer & Co.	Miss A. Sheldrick. Kingston	Joseph Grondin St. François Beauce	Mrs. John Flangan.	John Dougall & Son "Herald & Star" do Mrs. W. Fenwick, Galt J. D. King, & Co. Toronto	Father Gadts Montreal Ferdinand Roberge New Liverpool Messrs. Elliott Bros Kingston J. D. King, & Co. Toronto
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Name of Writer.		Samuel Rogers Oil Ottawa	Emily Fleet	Esdras Grondin Chicago, I	John Flanigan Montreal.	W. H. Ewer. Minnedosa, Man Sanuel Risser. Lunenburg, N.S. W. J. McCormack Toronto D. Lohr. Philipsburg, West.	H. Kavanagh Montreal F. Roberge Ottawa Jas. Elliott Toronto. Coote & Watson Oakville.
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II. Unregistered Letters—Report of all cases occurring within the Year ended 30th June, 1889, of abstraction from, or loss of, Letters containing Money, sent through the Post Office in Canada—Continued.

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Name of Writer. Where Mailed. When Mailed. Contents. Sect.	ss in ss.	glO Recapit		4			~ <u>~</u>	
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Name of Writer. Where Mailed. When Alleged Name.	Letter.	Place		Poronto	tawa	Kingston Poronto. Aylmer, Sothwel, Poronto. Winnipeg Montreal Montreal Ste. Flore Ste. Flore Ste. Flore Antreal Sarnia	Granby. Ottawa Peterboro . Montreal.	do . Xingston . Foronto . Promocto,
Name of Writer. Where Mailed. When Alleged Adam Devenny. Buckingham. do 4. 5 00 R. MacDonald. Winnipeg. do 5. 10 00 E. Hoople. Winnipeg. do 7. 3 00 Thos. Dick. Winnipeg. do 7. 3 00 W. M. Watmough. Springfield, Ont. do 9. 8 45 Geo. Wilkes. Vancouver, B.C. do 10. 10 00 Rev. Mr. Howe. Brussels. do 10. 10 00 Rev. Mr. Howe. Brussels. do 11. 15 00 Norbert Barbier. Montreal. do 11. 15 00 N. S. Seacy. Gracefield do 11. 15 00 M. S. Sheavy. Gracefield do 16. 15 00 W. F. McKenzie. New Glasgow, do 16. 15 00 W. F. McKenzie. New Glasgow, do 18. 2 00 W. G. Wilson. Februara. South Indian. do 18. 2 00 W. Emerson. Pont du Sault. do 20. 1 00 2 00	jo sse			Van	:	ld]	on (ilson Con I	mers aser. 7
Name of Writer. Where Mailed. When Alleged Adam Devenny. Buckingham. do 4. 5 00 R. MacDonald. Winnipeg. do 5. 10 00 E. Hoople. Winnipeg. do 7. 3 00 Thos. Dick. Winnipeg. do 7. 3 00 W. M. Watmough. Springfield, Ont. do 9. 8 45 Geo. Wilkes. Vancouver, B.C. do 10. 10 00 Rev. Mr. Howe. Brussels. do 10. 10 00 Rev. Mr. Howe. Brussels. do 11. 15 00 Norbert Barbier. Montreal. do 11. 15 00 N. S. Seacy. Gracefield do 11. 15 00 M. S. Sheavy. Gracefield do 16. 15 00 W. F. McKenzie. New Glasgow, do 16. 15 00 W. F. McKenzie. New Glasgow, do 18. 2 00 W. G. Wilson. Februara. South Indian. do 18. 2 00 W. Emerson. Pont du Sault. do 20. 1 00 2 00	Addre	ume.			venny	cdona. Jilis Jilis Jove Vec W. Ste W. Ste M. Ste Mingto	Jacks G. W. oberts Zainwr	iseDel irie. A. Fr. 5. Hol
Name of Writer. Where Mailed. When Alleged Contents. J. D. Johnstone. Peterboro. Feb. 4. 4 00 Adam Devenny. Buckingham. do 4. 5 00 R. MacDonald. Montreal. do 7. 1 03 P. MacDonald. Wimnipeg. do 7. 1 03 P. MacDonald. Wimnipeg. do 7. 1 03 R. MacDonald. Wimnipeg. do 7. 1 03 Rob. Burrell. Brussels. do 10. 8 45 Geo. Wilkes. Ferwiled. do 10. 8 45 Geo. Wilkes. Fornoried. do 11. 15 00 N. S. Steacy. Gracefield. do 11. 15 00 Norbert Barbier. Petricodiac. do 16. 15 00 Moss Newton. Petricodiac. do 18. 2 00 W. F. McKenzie. N. S. N. S. 2 00 W. G. Wilson. Fetrodiac. Go 20. P. E. T. W. Emerson. Pont du Sault. do 22. 2 00 W. Emerson. Pont du		ž		Mrs. M Ressle	L. L. De	Mrs. Mans. Mans. Th. Williams. The Jesse Hoo Mrs. W. Wils. J. F. Br. Mrs. J. F. Br. Mrs. G. Mrs. G. Mrs. Syn Mr	Mrs. P. Mrs. W. W. H. R MissJ.W	Miss Lou J. S. Shu Mrs. R. Mrs. Jn
Name of Writer. Where Mailed. Whe Adam Devenny. Buckingham. do E. Hoople. Wimipeg. do Thos. Dick. Wimipeg. do Thos. Dick. Wimipeg. do Thos. Dick. Wimipeg. do Geo. Wilkes. Wanguire. Derville. God Geo. Wilkes. Vancouver, B.C. do Geo. Wilkes. Vancouver, B.C. do Geo. Wilkes. Petitoodiae. do Norbert Barbier. Montreal. do Norbert Barbier. Montreal. do Geo. Symington. Petitoodiae. do Miss Newton. Petitoodiae. do W. F. McKenzie. New Glasgow, do P. Jackson. South Indian. do W. G. Wilson. Iroquois. Gharlotte to wn, do Trenton. Pont du Sault. do Jr. Shurie. Trenton. Mar. Mar. Mar. M. Collins. St. John, N. B. do Mrs. M. Collins. St. John, N. B. do	Alleged	Contents.		4 00	5 00	10 8889888888888888888888888888888888888	888 8	10 00 10 00 50 03
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Name of Writer. Where Mailed. J. D. Johnstone Peterboro. E. Hoople Winnipeg. Thos. Dick Winnipeg Winnipeg. Thos. Dick Winnipeg Wi	Whe	Mail	188	Feb.	qo			
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Name of Writer. J. D. Johnstone Adam Devenny E. Hoople Thos. Dick Wm. Warmough John Burrell. Rev. Mr. Howe Geo. Wilkes E. Bagwire G. Symington Miss. Newton W. F. McKenzie P. Jackson W. F. McKenzie P. Jackson W. Emerson W. E. Shurie Mrs. A. Gay Mrs. A. Gay Mrs. A. Gay Mrs. A. Gay Mrs. M. Collins Mrs. M. Collins	¥	TATA		boro.	nghan	real ipeg y, Onty y, Onty gfield, real els field field codiac. codiac. Glas Glas	India ois otte to E. I	du Sau on ord
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2	Stolen by Letter Carrier Henry R. Atkinson, of the Toronto Post Office, who was apprehended on a charge of stealing an ordinary letter, and sentenced to 3 years in the Penitentiary. Contents	No trace, owing to want of registra- tion.	do do	qo	do	op op	do	go go	do do	qo	op	do	9 op op	Stolen by Letter Carrier G. Rosa, of the Montreal Post Office who	was brought to trial, pleaded guilty, and was sentenced to five years in Penitentiary. Contents	recovered. No trace, owing to want of registra-	99 99 90 99
	arrier e Torappre ing an oced tary.	want											5 - 6 - 6	arrier Post (trial enten	want	
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9 9 9 9 9	olen by Letter Carrier Office, who was appre a charge of stealing an letter, and sentenced in the Penitentiary.	e, owi	qo qo	qo	do	တု တု	op -	၀၀ ၀	දිදි	ဝှဝ	op	do	9 9 9	oy Le	brough, and in Pe	ered. e, owi	9999
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A. Patterson, jr Sackville, N. Rev. A. Beamer Petrolea Miss M. Slater Montreal C. Gauthier La Plaine W. J. Hayward Stratford	Toronto		J. L. Courtois L'Assomption Victorine Gauthier Montreal	London Stamp Co. London	Arthur Gariepy Ste. Martine	clair	Miss Picken. Brockville					ıble.				son	
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260 262 263 263 264	265	366	267	269	270	272	26	7	67 6	i ca	22	20.0	กัลัลั	8		22	ត់សិស៊ីស៊ី

II. Unregistered Letters—Report of all cases occurring within the Year ended 30th June, 1889, of abstraction from, or loss of, Letters containing Money, sent through the Post Office in Canada—Continued.

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ni ss.	Gla Recapit							
Result of Proceedings	Department.	Stated not to have No trace, owing to want of regisbeen received by tration.	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	:::::: 0000000000000000000000000000000	: ::	::: 0000	do do do Stolen by F. E. N. Boucher, late Postmaster St. Francois du Lac.	who was arrested, brought to trial and sentenced to seven years in penitentiary.
Resu	and a second	No trace, tration.	999999	0000000		၀၀ ၀၀ ၀၀	do do do Stolen by Postmas	who was arrest trial and sentence in penitentiary.]
Evidence of	Abstraction.	Stated not to have been received by	person addressed. do d	:::::: &&&&&&&&&&&&&&&&&&&&&&&&&&&&&&&		::: op op op	운용용용 	
f Letter.	Place,	Toronto	Drew Walkerville Paris Winnipeg. Quebec Blyth.	Boucherville Montreal. Winnipeg. Kingston. Montreal. Sandwich.	St. Johns, East Toronto	op op	Ottawa Belleville Montreal. St. Pie de Guire.	
Address of Letter.	Name.	J. R. Nelson & Co. Toronto	Geo. W. Gibson. Drew. J. S. Brown & Co. Walkerville J. S. Brown & Son Paris. Mrs. Bulling. Mrs. D. McAneeny. Quebec. R. B. Dunbar. Blyth.	Mile, H. Sicotte. Boucherville. T. S. Vipond Montreal. Mrs. E. Agnew Kingston "Gazette." Pr'g Co Montreal Emest Girardot Sandwich Mrs.T. H. Bucking. Stratford	R. A. Webster St. Johns, East. Wm. Jones. Tr. H. Ellis Collingwood	Mrs. J. S. Fisher . Mrs. E. P. Park Messrs. Suckling & Sons	Mrs. Henderson Joseph Dansereau. A. J. White & Co. Alex. Martel	
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Mrs. L. Henderson. Gravenhurst	Joseph Leveillé, fils Ste. Ann	Mrs. R. H. True-Winnipeg	Miss A. Tétu "Globe" Office J. Amyot & Frère.	Mrs. Scheuer S Mrs. E. Edward T Mrs. R. B. Linton Mrs. J. W. Mann. I Miss Robertson E	H. Ellis	Mrs. J. A. Hill	Royal Silverware Windsor, Ont.	"Free Press" London, Ont.	erm	nes. M. Pouliot Addie Gould. W. Corrigan.		Frinding Co.: Montreal Jacob Drumm Neustadt Samuel Hildred Bervie
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315 J. B. Henderson. Toronto	Montreal	R. H. Trueman Brandon	Ottawa Lieury bé. St. Urbain de	Toronto. Goderich Kincardine West Winchester Montreal Buckingham	J. W. Forbes St. Thomas	J. A. Sheares Cornwall E. V. Thornycroft. Wanstead	Mrs. M. Harnott Montreal	n Sand Beach	D. Wyoming. Lethbridge Ottawa. Camerontown. Montreal		Murray & Gorman Penbroke do do Jane A. Todd. Montreal E. Cockroft Elora. George Harris Nilestown	William Brown. Owen Sound E. & C. Gurney & Hamilton Co. Charles Hildred. Toronto
J. B. Henderson	Joseph Leveillé Montreal	R. H. Trueman	J. H. Parnell Otts Alex. Smith Liet Alphonse L'Abbé. St.	B. Scheuer. Charles Blake F. B. Linton J. W. Mann James A. Todd N. Cochrane	J. W. Forbes			E. M. Morrison	D. W. Anderson. John McNeil Thomas Galey D. Cattanach P. McGovern			
315	316	317	318 319 320	321 323 324 325 325 326	327	328 329	0gg 26	331	88 88 88 88 88 88 88 88 88 88 88 88 88	338 339 340 341	345 345 345 346 346 346	347 348 349

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Letters, the contents of which (or a portion thereof) were stated to be missing, no evidence being forthcoming to account for the alleged discrepancy

Letters lost, embezzled or misdelivered in the Post Office, the contents of which were not recovered.

Letters, the contents of which (or a portion thereof) were lost or stolen, and made good by the officers responsible...

Letters, the contents of which (or a portion thereof) were lost or stolen in the Post Office, and not recovered.

II. Unregistered Letters—Report of all cases occurring within the Year ended 30th June, 1889, of abstraction from, or loss of, Letters containing Money, sent through the Post Office in Canada—Continued.

ulation.	Recapit	-
ui ss	CJ ⁹	
Result of Proceedings	Department.	Stated not to have No trace, owing to want of regisben received by the tration. person addressed. do d
Evidence of	Abstraction.	Stated not to have been received by the person addressed. do do do do do do do do do
f Letter.	Place.	ne de
. Address of Letter.	Name.	20 00 J. D. King & Co., Toronto 2 00 Jacob Drumm Neustadt 5 00 Robt. Pearson Toronto 5 00 Annie Ryder Montreal 5 00 Jno. R. Williams. Toronto 5 00 Miss A. Gould Branford 4 50 F. H. Nield Ste. Am
Alleged	Contents.	8 8170 80 70 70 4 9 9 9 9 9 9 70
When	Mailed.	1889. June 13 do 17 do 20 do 20 do 21 do 21
When Mailed		1
No. Name of Writer Whore Mailed		B50 R. G. Cotton Lakefield B51 E. & C. Gurney. Hamilton B52 Thomas McBride Schreiber B53 Alfred Ryder Toronto B55 S. J. Gould Cuchige B56 J. T. Hampson Toronto
, Z		# #H # 9555 06 1588888888 270

RECAPITULATION.

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292	œ
21	30
 Letters stated not to have been received by persons addressed; but, for want of registration, no trace obtainable, and no positive evidence that loss occurred in the Post Office. Letters contained in mails or mail packages stated not to have reached offices for which they were intended; cause of failure not discoverable. Letters lost, embezzial or misdelivered in the Post Office, the contents of which (or a portion thereof) were recovered from the officers responsible. 	or otherwise made good

Classification of Cases.

53	V	ict	tor
က		356	200
12	47	943	
or made good from the Post Office or mails en route, the contents of which (or a portion thereof) were recovered there so found the Post Office or mails en route, the contents of which were not recovered.	The second and the se	Totals.	

WILLIAM WHITE,
Deputy Postmaster-General.

W. D. LeSueur, Secretary. STATEMENT of Letters received at the Dead Letter Office, Canada, during the showing how such Dead

TABLE No. 1.—Showing the Number of Letters of all

	TABLE No. 1.—Sho	owing the	Number	of Lette	rs of all
	Number received.			-	
DEAD LETTER Returned; do	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		9,194 98,844 418 151 141 68 58 56 50 199 109,179 2,270	106 900	١.
foll. Regis J Lette 3 Letter of Letter d	from Post Offices in Canada, classified as ows:— tered Letters on hand on 30th June, 1888 do in hands of Postmasters on 30th June, 1888 do received during the year ended 30th une, 1889 (including those of foreign origin) rs found to contain value and recorded, on hand 0th June, 1888	122 291 12,439 158 79	12,852	16,347	
On ha Recei Ordinary ceived Dead Lett do Returned Lette Dead Boo On ha Recei	Dead Letters originating in Canada:— und on 30th June, 1888 ved during the year ended 30th June, 1889 Dead Letters originating in other countries rediduring the year ended 30th June, 1889 ters with printed addresses of senders with official franks Dead Letters, i e., Letters sent out from Dead of Office and again returned unclaimed ks, Parcels, &c.:— und 30th June, 1888 Postal Cards, &c Postal Cards, &c	1,890	236,898 101,374 33,509 11,386 69,485 22,895 184,993	660,540	783,796
	Carried forward				783,796

Year ended 30th June, 1889, and of their contents, valuable or otherwise, Letters have been disposed of.

kinds received, with the disposition made of them.

	Ho	ow dispose	d of.					_
T								
AD LETTERS Returned letters	to Great not enur	Britain, i	ncluding all foreign clow; of these were	(607)		23,898		
Returned	$egin{array}{cccc} \mathrm{red} & \dots & $	Inited Sta	tes; of these were	(607)		75,198		
Returned t	red o Newfou	indland;	of these were regis-			659		
			es; of these were re-			90		
Returned t	o Victoria	a; of these	were registered	(1)		73		
dი do	New Ze Mexico		do	(3) (1)		67 61	1	
do do	Japan Other c	olonies and	do I foreign countries;	(4)		50		
qo			egistered	(12)		366		
				(1,110)				
			oreign origin remain- 1889; of these were					
			these were	(26)		912	101,374	
			writers, including th	nose of	10.913		101,0,1	
Registered		n the hand	s of Postmasters		329			
do			livery to writers, ow address, &c., found t					
no valı	ue and des	stroyed			1,276			
no valu Registered	ue and des Letters in	stroyed n Dead Le	tter Office awaiting	claim	334	12,852	,	
no valu Registered Letters fou do	ue and des Letters in and to con do	stroyed n Dead Le tain value	tter Office awaiting or returned to writers in hands of Postmas	claim		12,852	1	
no valu Registered Letters fou do do	ue and des Letters in and to con	stroyed n Dead Le tain value	tter Office awaiting or	ters	334			
no valu Registered Letters fou do do ing	ue and des Letters in and to con do do g claim	stroyed n Dead Le tain value	tter Office awaiting of returned to writers in hands of Postmas in Dead Letter Office	ters	334 3,074 135 286	12,852	16,347	
no valu Registered Letters fou do do ing	ue and des Letters in and to con do do g claim	stroyed n Dead Le tain value	tter Office awaiting of returned to writers in hands of Postmas in Dead Letter Office	ters. await-	334 3,074 135	3,495	16,347	
no valu Registered Letters fou do do ing Ordinary I	Letters in the condition of the conditio	stroyed n Dead Le tain value ers returne remaini with pr	returned to writers in hands of Postmas in Dead Letter Office d to writers ing on hand 30th Jun inted addresses retur	ters await-	334 3,074 135 286 216,622	3,495	16,347	
no valu Registered Letters fou do do ing Ordinary I	ue and des Letters in and to con do do g claim	ers returne remaini with pr send returne	returned to writers in hands of Postmas in Dead Letter Office d to writers ing on hand 30th Jun inted addresses retur ers d to Government L	tersawait-	334 3,074 135 286 216,622 1,496	3,495 218,118 33,509	16,347	
no valu Registered Letters fou do do ing Ordinary I do do	ue and des Letters in and to con do do g claim Dead Lette do do	ers returner remaining with presend returner without	returned to writers in hands of Postmas in Dead Letter Office d to writers ng on hand 30th Jun inted addresses retur ers d to Government Ints. t signatures or post	ters await- e, 1889 ned to Depart- marks,	334 3,074 135 286 216,622 1,496	3,495	16,347	
no vali Registered Letters fou do do ing Ordinary I do do do do	ue and der Letters in and to con do do g claim Dead Lette do do do do	ers returner remaining with programmer without according to the control of the co	returned to writers in hands of Postmas in Dead Letter Office d to writers ing on hand 30th Jun inted addresses returers d to Government Ints.	ters. await- e, 1889 ned to Depart- marks,	334 3,074 135 286 216,622 1,496	3,495 218,118 33,509 11,386	16,347	
no vali Registered Letters fou do do ing Ordinary I do do do Returned I Dead Book	ue and der Letters in and to con do do g claim Dead Lett do do do Dead Lett ss, Parcels	ers returner remaining with present returner met without accorders destroys, &c., returner, returner second returner without accorders destroys, &c., returner, returner retur	returned to writers in hands of Postmas in Dead Letter Office ed to writers ing on hand 30th Jun inted addresses retur ers d to Government I its signatures or post unts, &c., destroyed yed rned to senders	tersawait-e, 1889 ned to Depart-marks,	334 3,074 135 286 216,622 1,496 133,916 69,485 7,285	3,495 218,118 33,509	16,347	
no vali Registered Letters fou do do ing Ordinary I do do do Returned I	ue and des Letters in and to con do do g claim Dead Lett do do do do	ers returne remaini with pr send returne mer without acco ters destroy s, &c., retu o of no	returned to writers in hands of Postmas in Dead Letter Office d to writers ng on hand 30th Jun inted addresses retur ers d to Government I ints. t signatures or post unts, &c., destroyed	tersawait- e, 1889 med to Depart- marks,	334 3,074 135 286 216,622 1,496 	3,495 218,118 33,509 11,386	16,347	
no vali Registered Letters fou do do ing Ordinary I do do do Returned I Dead Book do do	ue and der Letters is and to con do do g claim Dead Lette do do do do con do do do do do do A Dead Lette do do do do do do do do do Dead Lette do	ers returner remaining with properties returner met without accorders destroyed, &c., returner of remaining of remaining the returner met without accorders destroyed, &c., returner of remaining the	returned to writers in hands of Postmas in Dead Letter Office ed to writers ing on hand 30th Jun inted addresses retur ers d to Government I ats ts signatures or post unts, &c., destroyed yed rned to senders o value disposed of aining in Dead Letter	e, 1889 e, 1889 med to Depart- marks,	334 3,074 135 286 216,622 1,496 133,916 69,485 7,285 4,078	3,495 218,118 33,509 11,386 203,401 14,668	16,347	
no vali Registered Letters fou do do ing Ordinary I do do do Returned I Dead Book do do Circulars	ue and der Letters in ind to con do do g claim Dead Lett do do do Dead Lett s, Parcels d d Postal Ca	ers returner remaining with properties returner met without accorders destroyed, &c., returner of remaining of remaining the returner met without accorders destroyed, &c., returner of remaining the	returned to writers in hands of Postmas in Dead Letter Office ed to writers ing on hand 30th Jun inted addresses retur ers d to Government I ats ts signatures or post unts, &c., destroyed yed rned to senders to value disposed of aining in Dead Letter estroyed or otherwi	e, 1889 e, 1889 med to Depart- marks,	334 3,074 135 286 216,622 1,496 133,916 69,485 7,285 4,078	3,495 218,118 33,509 11,386	16,347 666,075	
no vali Registered Letters fou do do ing Ordinary I do do do Returned I Dead Book do do Circulars	ue and der Letters in ind to con do do g claim Dead Lett do do do Dead Lett s, Parcels d d Postal Ca	ers returner remains with present without accorders destroyed	returned to writers in hands of Postmas in Dead Letter Office ed to writers ing on hand 30th Jun inted addresses retur ers d to Government I ats ts signatures or post unts, &c., destroyed yed rned to senders to value disposed of aining in Dead Letter estroyed or otherwi	e, 1889 e, 1889 med to Depart- marks,	334 3,074 135 286 216,622 1,496 133,916 69,485 7,285 4,078	3,495 218,118 33,509 11,386 203,401 14,668		783,79

STATEMENT of Letters received at the Dead Letter Office, Canada,

Table No. 1.—Showing the Number of Letters of all kinds

Number received.		-	-	-
Brought forward.	-			783,796
RECIAL LETTERS, classified as follows:— Registered Letters on hand on 30th June, 1888 do in hands of Postmasters, 30th June, 1888 do received for better address, postage, &c.	202			100,100
Letters found to contain value and recorded:— On hand on 30th June, 1888 In hands of Postmasters on 30th June, 1888 Received for better address, postage, &c	50 31 1,123	10,239		
Ordinary Letters on hand on 30th June, 1888	689 36,096	36,785	11,443	
do do better address Drop Letters received for postage		18,233	55,018 6,431	
Letters for foreign countries on hand on 30th June, 1888. do do received as unpaid or short- paid		12,242	12,643	
Returned Dead Letters received Postal Cards received for postage. do do address.		4,751 4,421	9,172	
Circulars received for postage	,	390 752	1,142	
On hand on 30th June, 1888, received in that and pre- vious years. Received for postage, better address or not claimed. (Of these 1,171 contained enclosures contrary to		1,738		
law).		7,118	8,856	109,50
	,			
,				
			_	893,29

during the Year ended 30th June, 1889, &c.—Continued.

received, with the disposition made of them—Continued.

How disposed of.	-	-	-	_
Brought forward.				783,7
CIAL LETTERS :				ŕ
Registered Letters returned to writers or forwarded to	10,020	•		
address	70			
do unsigned and of no value, destroyed in consequence of the inability of the				
Department to return or deliver	35			
do in Dead Letter Office awaiting claim.	114	10,239		
Letters found to contain value, returned to writers or for-		10,200		
warded to address	$\frac{1,066}{24}$			
do do in Dead Letter Office await-				
ing claim	114	1,204		
			11,443	
Ordinary Letters received for postage:— Returned to writers	23,281			
Forwarded to address	10,992			
Destroyed, in consequence of the inability of the Department to return or deliver.	2,133			
Remaining on hand on 30th June, 1889	379	96 705		
Ordinary Letters received for better address:—		36,785		
Returned to writers. Forwarded to address.	15,487 704			
Destroyed, in consequence of the inability of the De-				
partment to return or deliver	2,042	18,233		
	-	10,200	55,018	
Drop Letters received for postage:— Returned to writers		1,771		
Forwarded to address		4,212		
Destroyed, in consequence of the inability of the Department to return or deliver		448		
			6,431	
Letters for foreign countries:— Returned to writers		4,877		
Forwarded to address		7,345		
Destroyed, in consequence of the inability of the Department to return or deliver		239		
Remaining on hand on 30th June, 1889		182	10 649	
Returned Dead Letters destroyed			$\begin{array}{c c} 12,643 \\ 4,797 \end{array}$	
Postal Cards received for postage, returned to writers or	1 900			
forwarded to address	1,899			
Postal Cards received for postage, destroyed in consequence of the inability of the Department to return	2,852			
or deliver	2,002	4,751		
Postal Cards received for better address returned to writers or forwarded to address	2,221			
Postal Cards received for better address, destroyed, in con-	2,221			
sequence of the inability of the Department to return or deliver	2,200			
or deriver		4,421	0.450	
			9,172	

893,298

STATEMENT of Letters received at the Dead Letter Office, Canada

TABLE No.	1.—Showing	the Number	of Letters	of all	kinds
-----------	------------	------------	------------	--------	-------

Number received.		 	
			,
Brought forward		 	8
Grand Total	 	 	
		1	

W. D. LESUEUR, Secretary.

during the Year ended 30th June, 1889, &c .- Concluded.

received, with the disposition made of them-Concluded.

_				
How disposed of.	_			
Brought forward			99,504	783,796
Special Letters—Concluded. Circulars received for postage, returned to senders	291 461	390 752 1,604 2,784 1,159	* 1,142	
Books, Parcels, &c., held for postage, address, enclosures, or not called for, remaining on hand (including balance of previous years) on 30th June, 1889		3,309	8,856	109,502
Grand Total				893,298

MARY.

Dead Letters disposed of Special do Letters on hand, 30th June, 1889.	778,375 105,404 9 519
2200018 off finales, bootto uno, 1000	893,298

WILLIAM WHITE,

Deputy Postmaster General.

A. 1890

Table No. 2.—Showing the number of Letters received containing Money or other enclosures of value; the amount and nature of their contents; the number of such Letters delivered during the Year, and the number remaining undelivered.

7 5 6	I .	1 44 77 4 5	1 1 1 0 0	1 1 (-1) 1 .	110041
iv ne		98860	etre de	on and of	高田はのは
No. of Letters received during the Year ended 30th June, 1889.		contents of received the Year 30th June,	30	anc um anc um L. O	Letters under on 30th 1889, and in hands of insters await aim.
9		e d de m	20 20 20	3 1	1 7 6 %
s p		ا م قود ا	g H. F. G	Dog 90 2	S c c c s
年十号		g _ 4 = =	99 H + 55	1.15 % O E	1 5 5 8 C E .
300 H	Nature of Contents.	1 5 ± 8	No. of Letters livered of those ceived during Year ended 30 June, 1889.	No. of Letters livered on June, 1889, now lying claimed in D.	No. of Lett livered June, 1 now in Postmast ing claim
- E	Nature of Contents.			o. of Le livered June, now l	E.E.E
o. of Leed duri ended 1889.		alue of Letters during ended 1889.	o, of livered ceived Year 6 June, 1	ne e e	5° 6 6
88 G G S		89. E.	1 0 5 5 6 d	E-Win G	of St Will of
(S 2 C)	,	Lett Lett duri ende 1889		o. of livered June, now claims	14.45 87 E
7		Value of Letters during ended 1889.	2	2	2
-					
		\$ cts.			
4,545	Money (including \$6.06 enclosed in letters				
	under other heads	$25,986 \ 05\frac{1}{2}$	4,173	206	166
56	Bills of Exchange	17,648 29	53	2	1
6	Bonds	21,342 80	6	-	
435	Ch	21,044 00	406		21
	Cheques	53,924 83		8	
332	Drafts	58,505 30	320	5	7
2	Letters of Credit	257 00	2		
639	Money Orders	13,583 31	593	14	32
61	Orders	3,436 97	58	2	1
11			10	2	1
	Passage Certificates	547 86			1,1
378	Promissory Notes	$77,445 \ 42\frac{1}{2}$	356	. 8	14
782	Receipts	68,143 01	743	21	18
6	Stock Certificates	5,082 00	5		1
ě	Various Certificates	15,300 03	6		
607	Project and Tetters sent to Deed Tetter	10,000 00	U		
007	Registered Letters sent to Dead Letter		0.07		
	Registered Letters sent to Dead Letter Office, London, England		607		
475	Registered Letters sent to Dead Letter				
	Office, Washington, U.S. A		475		1
28	Registered Letters sent to Dead Letter				
20	Offices other countries		28		
00	Offices, other countries				
98	Deeds		96	2	
64	Documents of Value		59		5
1	Documents of Value		1		
2	do A. O. U. W		2		
ī	do Architects		_	1	
10	do Architects		,	1	
	do Baptism		8		2
1	do Birth		1		
1	do Board of Trade		1		
1	do Carpenters and Joiners		1		
18	do Character		16	9	
1	do Cigarmaker's Union.		10	-	
		• • • • • • • • • •			
12	do Commercial Travellers		12		
5	do Deaths		5		
1	do Endowment		1		
2	do Entrance Examination		$\overline{2}$		
$\bar{6}$	do Foresters		$\tilde{6}$		
2			$\frac{0}{2}$		
4					
4	do Good Templars		4		
6	do Homestead Patents		6		
1	do Infantry				1
1	do Insanity		1		
1 8 1	do Insurance		8		
0			8		
1	do Knights of Labor		1		
1			1		
$egin{array}{c} 2 \ 22 \end{array}$	do Locomotive Firemen		2		
22			$2\overline{1}$	1	
10	do Medical			î	
9			9 9	1	
77					
7 8	do Oddfellows		7 8 5		
8	do Orange Lodge		8		
5	do Ownership		5		
1	do Pedigree of Stock		ĭ		
	do Pensioners		4		
4 3					4
3	do Pre-emption		2		1
5	do Registration		4	1	
2	do Royal Templars		2		
	27	Q			
	21	O			

Table No. 2—Showing the number of Letters received containing Money or other enclosures of value, &c.—Continued.

ed during the Year ended 30th June, 1889.	Nature of Contents.	Value of contents of Letters received during the Year ended 30th June, 1889.	No. of Letters delivered of those received during the Year ended 30th June, 1889.	No. of Letters under livered on 30th June, 1889, and now lying un- claimed in D.L.O.	No. of Letters undelivered on 30th June, 1889, and now in hands of Postmastersawaiting claim.
		\$ cts.			
1	Certificates—Sale		. 1		
2	do Scholars		2		
$\begin{array}{c c} 12 \\ 6 \end{array}$	do School Teachers		12	9	
2	do Seaman's do Sheriff's		$\frac{3}{2}$	3	
ĩ	do Steamboat		ī		
19	do Various		16	1	2
1	do Weights and Measures		1		
4	Abstracts		4		
$\frac{7}{1}$	do of Title		5		2
	Account Books		8		
	Affidavits		25		
	Agreements		26	1	2
1	Album.		1		
$\frac{1}{7}$	Anchor (gilt)			1	
	Applications		1		
	Assignments		6		
7	Baggage Checks		6		1
4	Bead Work		4		
3	Bibles		2	1	
1 1	Bib		1		
$\frac{1}{2}$	Bills of Sale		$\frac{1}{2}$		
ī	Blood Stone		ī		
60	Books		55		5
2	Boots		2		
1	Braces (Pair of)		1 1		
$\frac{1}{3}$	Brooch (Asbestos)do (Gilt)		1	2	1
1	Chair Tidy		1		
	Check		1		
1	Child's Clothes		1		
1	Cigar Case		$\frac{1}{6}$		
$\begin{bmatrix} 6 \\ 2 \end{bmatrix}$	Contracts		1	1	
	Coupons		. 2		
1 .	Crape		1		
1	Crochet Needle			1	
	Crown Grant		1		
$\frac{1}{12}$	Cuff Buttons (Gilt)		11		1
	Deeds of Sale		2		
1	Derby Sweepstake Ticket		1		
1	Diamond Ring		1		
1	Diploma		1		
11	Discharge—N. W. M. Police		11 2	2	
$\begin{bmatrix} 4\\2 \end{bmatrix}$	do Seaman		$\frac{2}{2}$		
4	Dominion Land Grants		4		
1	Drawing		1		
2	Dress Goods		$\frac{2}{1}$		
1	Duplicate Ticket		4	1	
5	Dyes		4		
2	Ear-rings (Gilt)		1	1	
			1		
1	Emerald		1		

Table No. 2-Showing the number of Letters received containing Money or other enclosures of value, &c .- Continued.

No. of Letters received during the Year ended 30th June, 1889.	Nature of Contents.	Value of contents of Letters received during the Year ended 30th June, 1889.	No. of Letters de- livered of those re- ceived during the Year ended 30th June, 1889.	o. of Letters undelivered on 30th June, 1889, and now lying un- claimed in D.L.O.	o. of Letters unde- livered on 30th June, 1889, and now in hands of Postmastersawait- ing claim.
18 ed 6.		[a] 4 a a a	5:E 87F	. 6: 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1	5:EP 5.E.
Z		<u>></u>	4	4	4
		\$ cts.			
	To	Ψ 005.	1		
1	Excution Exhibition Ticket		1 1		
2	Express Réceipts		2 2.		
$\frac{2}{2}$	False Teeth		$\frac{2}{2}$		
4	Foreign Stamps		4		
1	Fountain Pen		1		
$\frac{2}{2}$	Fruit Fur Caps		$\frac{2}{2}$	• • • • • • • • • • • •	
3	Glass		3		
1	Glass Eve		1		
$\frac{4}{12}$	Gold Jewellery—Bracelets do Brooches		4 8	· · · · · · · · · · · · · · · · · · ·	
12	do Case for Ear-rings			1	
4	do Chains		4		
2 4	do Cuff Buttons		$\frac{1}{3}$	1 1	
58	do Finger Rings		49	8	1
4	do Lockets		3	1	
$\frac{1}{2}$	do Locket and Chain do Pens		$\frac{1}{2}$		
10	do Pins		. 7	3	
6	do Spectacles		6		
10	$egin{array}{lll} ext{do} & ext{Toothpick} & ext{} & ext{} \ ext{do} & ext{Watches} & ext{} & ext{} \ \end{array}$		9	1 1	
2	Gold Quartz		i	. 1	
1	Hat		1		
1 1	Hood. Insurance Agent's Book.		1 1	• • • • • • • • • • •	• • • • • • • • • • • • • • • • • • • •
162	Insurance Policies		154	1	7
2	Invoices		2		
7 3	Keys		$\frac{6}{3}$	1	
3	Lace		2	1	
1	Land Contract		1		
8 87	Leases		7 83	1	4
2	Letters of Administration		2		
1	Linen Apron	• • • • • • • • • • •	1		
$\frac{1}{2}$	$egin{array}{ccc} ext{LicensesAuctioneer.} & ext{do} & ext{Pedlar.} & ext{.} &$		$\frac{1}{2}$		
1	do Tavern		1		
2	Life Insurance Bonus Certificate		1	• • • • • • • • • • • • • • • • • • • •	1
	Lock (Gilt)		$\frac{1}{2}$		
1	Machinery		1		
2	Maple Sugar		$\frac{1}{3}$	1	• • • • • • • • • • • • • • • • • • • •
$\begin{bmatrix} 3 \\ 2 \end{bmatrix}$	Medical Diploma		$\frac{3}{2}$		
2	Medicine.		$\tilde{2}$		
1	Meerchaum Pipe		$\begin{array}{c} \dots & \ddots &$	1	
$\begin{bmatrix} 2 \\ 1 \end{bmatrix}$	Metal Time Check		1		
2	Minerals		2		
1			1		
$\begin{bmatrix} 2\\2 \end{bmatrix}$	Mining Reports		$egin{array}{c} 2 \\ 1 \\ 2 \\ 2 \end{array}$		
22	Mortgages		21		1
14	do Chattel		14		
	28	U.			

Table No. 2.—Showing the number of Letters received containing Money or other enclosures of value, &c.—Continued.

ended oven oune, 1889.	Nature of Contents.	Value of contents of Letters received during the Year ended 30th June, 1889.	No. of Letters de- livered of those re- ceived during the Year ended 30th June, 1889.	No. of Letters undelivered on 30th June, 1889, and now lying unclaimed in D.L.O.	No. of Letters undelivered on 30th June, 1889, and now in hands of Postmasters awaiting claim.
		\$ ets.			
5	Mortgages, Discharges of		5		
1	Muffler		1		• • • • • • • • • • • •
1	Naturalization Papers		1		
1	Oil		1		
$\frac{1}{2}$	Old Letters		1	1	• • • • • • • • • • • •
1	Ostrich FeathersOxidized Silver Chain and Charm		1	1	
30	Pass Books—Bank		29		1
10	do Building and Loan		8	2	
19 1	do Savings Bank Patent Medicine		18		
2	do for Harrow		2		
1	do Watchmakers' Pliers		$\frac{1}{3}$		• • • • • • • • • • • •
$\frac{3}{2}$	Pawn Tickets		$\frac{3}{2}$		
1	Pedigree		1		
1	Pencil (Gilt)		$\frac{1}{5}$	• • • • • • • • • • • • •	
5 1	Permits—Liquor		1		
î	do Timber				1
1	Petition to Parliament		1		
1 5	Photo (large) Pills (Boxes of)	, , , , , , , , , , , , , , , , , , ,	$\frac{1}{4}$	1	
2	Pins (Gilt)		1	1	
4	Plans.		3 2	1	
$\frac{2}{14}$	Pocket Knives		14		
2	Prayer Books		2		
1	Probate of Will		1 1		
1 8	Railway Book of Tickets		8		
26	do Ticket		22	4	
1	Razor		1 6		
7	Registered Letters do Letter Receipt		0	1	1
2	Releases		2		
1	Revolver		8	1 4	
14	Rings (Gilt). Scarf Pin.			1	2
1	School Return		1		
3	Seeds		$\frac{2}{1}$	1	
$\frac{1}{3}$	Sewing Machine Needles			1	
2	Ships Papers		3 2 2 2 2		
2	Silk		2		
2 17	do Gloves. Silk Handkerchiefs.		15	1	· · · · · · i
2	Silver Jewellery—Bracelets		1	1	
11	do Brooches		8 2	3	
$\frac{2}{2}$	do Chains		2 1	1	
1	do Monogram		1		
1	do Pin		1	1	
1 35	do Scent Bottle		29	5	1
1	Silver Spoon Lock.		1 1		

Table No. 2—Showing the number of Letters received containing Money or other enclosures of value, &c.—Concluded.

Nature of Contents.						
Sectacles Spectacles Sectaments of Claim Statements of Cla	No. of Letters received during the Year ended 30th June, 1889.	Nature of Contents.	Value of contents of Letters received during the Year ended 30th June, 1889.	of Letters ered of those ived during ear ended 3 me, 1889.	No. of Letters undelivered on 39th June, 1889, and now lying un- claimed in D.L.O.	No. of Letters undelivered on 30th June, 1889, and now in hands of Postmasters awaiting claim.
Spectacles Statements of Claim 2						
2 Statemboat Passes 2 1			\$ cts.			
Stethoscope		Spectacles			1	
Stock Book 1		Statements of Claim		2		
Stock Book					1	
1 Stylographic Pen. 1 1 1 1 1 1 1 1 1						
20 Summons		Stylographic Pen		1		
Testimonial of Merit.				18	1	1
3				1		
Trinkets						
Trusses.						
13						
Victoria Rifle Armory Tickets 2 3 Waists of Dresses 3 1 Watches—Brass 1 1 1 1 1 1 1 1 1		Unopened Letters			1	9
Waists of Dresses 3		Victoria Rifle Armory Tickets				
1		Waists of Dresses				
2 do Gilt 2 2 2 2 2 2 2 2 2	1					
2 do (Parts of). 2 do (Sundial) 1 do (Sundial). 1 do (Works). 1 do Seal 1 do	1					
2 do (Parts of). 2 do (Sundial) 1 do (Sundial). 1 do (Works). 1 do Seal 1 do	2					
1 do (Sundial) 1 <t< td=""><td>2</td><td>do (Parts of)</td><td></td><td></td><td></td><td></td></t<>	2	do (Parts of)				
1 do						
1				î		
Wood Cut. 1						
Wooden Pipes 2						
19 Woollen Goods						
Woollen Mitts. 3 21						
Writs. 21					1	
9,873 17,917 Add to these ordinary Registered Letters not enumerated above and letters containing value not enumerated above which have been returned, forwarded or otherwise disposed of, as shown in Table I. Grand Total of letters containing value disposed of. Grand Total of Letters unclaimed in Dead Letter Office. Grand Total of Letters in hands of Post-						
Add to these ordinary Registered Letters not enumerated above and letters containing value not enumerated above which have been returned, forwarded or otherwise disposed of, as shown in Table I						
enumerated above and letters containing value not enumerated above which have been returned, forwarded or otherwise disposed of, as shown in Table I. 17,175 204 538 Grand Total of letters containing value disposed of. 26,384 Grand Total of Letters unclaimed in Dead Letter Office. 558 Grand Total of Letters in hands of Post-	9,873	A 11 4 41 1' D 1T -++	361,202 88	9,209	354	310
been returned, forwarded or otherwise disposed of, as shown in Table I	17,917	enumerated above and letters containing				
Grand Total of letters containing value disposed of. Grand Total of Letters unclaimed in Dead Letter Office		been returned, forwarded or otherwise dis-		17,175	204	538
posed of						
Letter Office				26,384	558	848
Grand Total of Letters in hands of Post-		Letter Office		558		
111007001011		Grand Total of Letters in hands of Post- masters		848		
27,790	27,790			27,790		
						!

450 Letters remained in hands of Postmasters on the 30th June, 1888. All of these have been satisfactorily accounted for.

WILLIAM WHITE,

Deputy Postmaster General.

W. D. LeSueur, Secretary.





No. 25.—Continued.

NOTICE-Continued.

2. The Minister further submits that the Commissioners urge that the new Basin is used by sea-going wessels which have traversed the improved deep-water channel between Quebec and Montreal, upon which large sums of money have been expended by the Trust, and that by this action the Harbour revenues are likely to be seriously affected.

3. The Minister represents that the matter having been referred for report to the Chief Engineer of Canals, who states to the effect, under date 12th January inst, that at the time of the passage of the Act cited (1855) the municipality was responsible for the expenditure incurred in deepening the channel of the river, and that the Government, about ten years later, assumed the debt in respect of Lake St. Peter, amounting to \$1,164,235; further, that the Harbour Commissioners have not in any way aided in the construction of the new Canal entrance and Basins, and that he is unable to see grounds for giving them control over the revenue which may arise therefrom.

4. The Chief Engineer suggests that the Commissioners should be allowed to retain the right of levying.

dues in respect of the old Lower Basin, but that the Government should retain full control of the new works and Basins, and of the revenue that may be derived from their use, and he advises that the rates should be levied by the Government on vessels loading or unloading in the new Basins, equal and similar to those levied by the Commissioners in respect of the old Basin.

5. The Minister concurs in the view taken by the Chief Engineer, and recommends that authority be given in accordance therewith.

6. The Committee submit the above recommendation for Your Excellency's approval.

(Signed),

JOHN J. McGEE,

Clerk, Privy Council.

RATES AND DUES TO BE LEVIED IN THE HARBOUR OF MONTREAL, UNDER AND BY VIRTUE OF THE ACTS 40 VIC., CHAP. 53, AND 42 VIC. CHAP. 28. On and after the 1st day of April, 1881:-

TONNAGE DUES

To be levied on all Vessels in the Harbour.

On Steamboats for each day of twenty-four hours, or part of a day they remain in the harbour, reckoned from the hour of their arrival to that of their departure. 1c. per ton register. On all other Vessels, per day, as aforesaid......½c.

WHARFAGE DUES

To be levied on all Merchandise, Animals and things whatsoever landed or shipped in the Harbour.

Hav Street Pic and Screet Landise, not elsewhere specified.	250 %	on ton
aray, Sulaw, 11g and Scrab Iron. For and Pearl Ashes	00-	er ton.
Apples, Crates and their contents, Flour and Meal, Fish Meats Pitch Potatoge Ton Horsey		
Neat Cattle, Sneep, Swine	15-	7
Dallast, Olay, Fift Dricks, trypsim Lime Warnie Phoenhates Sand Salt	10	1
Coal and Coke, Grain and Seeds of all kinds.	10c.	do
Special—Bricks, 10c. per 1,000; Cordwood, 5c. per cord; Lumber, 10c. per 1,000 feet, board	7 2C.	do
measure.		
Bullion, Specie		

On all Goods, Wares and Merchandise whatsoever, the quantity of which by weight, measurement or other mode of estimate provided for in the Tariff, cannot be conveniently ascertained, it shall be lawful for the Harbour Commissioners to levy a rate of \(\frac{1}{4}\) of 1 per cent. on the value thereof.

Each entry shall pay not less than 5 cents.

All property landed on the wharves for re-shipment shall only pay one wharfage.

The Ton mentioned in the Tariff of Wharfage Dues shall be 2,000 lbs. weight, or forty cubic feet measurement, according to the Bill of Lading.

STANDARD FOR ESTIMATING WEIGHTS.

	do do
(p	Cattle 3 p 15 e 10

Certified,

(Signed)

H. D. WHITNEY, Secretary.

HARBOUR COMMISSIONERS' OFFICE.

PRIVY COUNCIL OFFICE, OTTAWA, 1st April, 1881.

I hereby certify that the foregoing Tariff has been approved by His Excellency the Governor General in Council, on the 1st day of April, 1881.

(Signed)

J. O. COTÉ.

No. 25—Continued.

NOTICE—Continued.

At a meeting of the Harbour Commissioners of Montreal, held on the 2nd of June, 1881, the following By-law was adopted under the authority of the Act 42 Vic., chap. 28. Present: Andrew Robertson, Esq., Chairman; J. B. Rolland, Edward Murphy, Henry Bulmer, Victor Hudon, Hugh McLen-nan, Chas. M. Gould, Hon. J. L. Beaudry (Mayor) and Andrew Allan, Esq. "Whereas it is expedient in the general interest of the Port of Montreal, that the charges on grain be

reduced until the 1st of September next.

"Therefore it is hereby resolved, that the said rate on grain be reduced as aforesaid from seven and one-half cents (7½c.) per ton to one cent (1c.) per ton."

PRIVY COUNCIL, 7th June, 1884.

I hereby certify that the foregoing By-law of the Harbour Commissioners of Montreal, adopted under the authority of the Act 42 Vic., chap. 28, has been this day approved by His Excellency the Governor General in Council.

(Signed)

JOHN J. McGEE,

Clerk, Privy Council.

RATES OF TOLLS ON FLOATED TIMBER, &c., ENTERING THE BASIN AT LACHINE AND LACHINE CANAL.

O. C., 8th June, 1860.—1. His Excellency the Governor General in Council is pleased to order, and it is hereby ordered, that from and after the date hereof the following Rates of Tolls shall be collected on Floated Timber, Lumber and Firewood entering the Basin at Lachine and Lachine Canal:

Kinds of Timber.	Forreceiving Timber, &c., to include use of Basin or Wharf for one month.	For each succeeding month during the Season of Navigation.	For wintering in Basin or on Wharf.
Timber, square or round, of all kinds, above 12 x 12, per M, cubic feet	Cents.	Cents.	Cents.
do round or flatted, of all kinds, under 12 x 12 per M. lineal feet		15 2	30
Saw Logs, 12 feet long, if longer in same proportion per log	$\frac{1}{10}$	$\overline{\overset{1}{5}}$	$\frac{2}{10}$
Traverses, per 100 . Fence Posts and Rails, per M. Staves, Barrel, per M	10	5 5 4	$\frac{10}{10}$
do Pipe per M do West India per M.	8 8	4	8 8 8
Firewood on Bank of Canal, between Lock No. 3 and Lock No. 5, and also on Wharves in Canal Basin at Lachine		3	3

No allowance to be made for fractional parts of a month or winter season.

The Firewood to be corded across the bank while being delivered from the Boat in such a manner and at such points as the Superintendent may direct.

The Rates on Timber to take effect upon the completion of the Booms in Lachine Basin.

CHARGES FOR REPAIRING VESSELS ON THE BANK OF LACHINE, BEAUHARNOIS AND CHAMBLY CANALS.

PRIVY COUNCIL OFFICE, OTTAWA, 5th March, 1880.

1. I hereby certify that by order of His Excellency the Governor General in Council, passed on the seventh day of February last, authority was given for the enforcement of a rule by which persons using the banks of the Lachine Canal as a site for the repair of their vessels, shall be subject to a charge of four dollars (4) payable in advance, for each vessel; the period during which such site may be occupied, under any one payment being limited to six months, and permission for repairing being first obtained from the proper officer, in conformity with the existing canal regulation.

2. It is further declared by the said Order in Council that in the event of failure to remove vessels so

occupying the banks at the expiration of the period named, no fresh permits having been obtained,

such vessels, may be sold under the 16th clause of the Regulations of the Canal.

J. O. COTÉ, (Signed) Clerk, Privy Council.

No. 25—Concluded.

NOTICE—Concluded.

GOVERNMENT HOUSE. OTTAWA, 6th August, 1881.

Present .

THE HONOURABLE THE DEPUTY OF HIS EXCELLENCY THE GOVERNOR GENERAL IN COUNCIL.

The Deputy Governor, on the recommendation of the Honourable the Acting Minister of Railways and Canals, has been pleased to adopt the following rules with respect to the repairing of vessels on the banks of the Lachine Canal, the Beauharnois and the Chambly:—

1. Repairs shall only be executed at such points as may be indicated and approved by the Superin-

2. For each vessel hauled up or beached for repairs, a charge of one dollar, over and above all other charges, shall be made, carrying the privilege of remaining for one month, a further sum of one dollar being charged for each additional month or fraction of a month the vessel may remain.

In cases, however, where a vessel hauled up for repairs upon the Canal bank remains there throughout the winter, a charge of four dollars only shall be made (in addition to the ordinary winterage dues) the period covered being from the 1st of November to the 1st of June, inclusive.

3. Any vessel remaining on the Canal bank after having wintered thereon shall be charged at the

rate of one dollar a month or a fraction of a month of her subsequent stay.

4. Any vessel remaining more than one year on the bank of the Canal shall for such time as she may remain in excess of that period pay at the rate of two dollars a month, or fraction of a month throughout the whole year.

5. All charges shall be payable at the collector's office in advance on the first day of each month.
6. These rules shall be understood as applying to all cases where the Canal bank is used in any manner

for the repairs of vessels whether such vessels are actually hauled up or not.

(Signed)

J. O. COTÉ. Clerk, Privy Council.

RIDEAU CANAL—REGULATIONS RELATIVE TO FIREWOOD LANDED AT BASIN, OTTAWA.

Notice is hereby given that in accordance with the 28th Chap. Con. Stat. of Canada, His Excellency the Governor General in Council has been pleased to approve of the following additional Regulations to ensure the proper using, management and protection of the Canals of the Dominion of Canada.

By command.

(Signed)

WM. H. LEE. Clerk, Privy Council,

PRIVY COUNCIL OFFICE, OTTAWA, 14th October, 1867.

REGULATIONS in pursuance of the 28th Chap. Con. Stat. of Canada, for landing Firewood on the line of the Rideau Canal, in the City of Ottawa, and in addition to the Regulations for the management and protection of the Provincial Canals which were authorized by the Governor in Council, 20th May, 1857, Sections 14 and following, and were made applicable to the Rideau Canal, under the order of His Excellency in Council on the 2nd June, 1860.

1. No Firewood to be landed on the easterly side of the Basin from Sappers' Bridge to the line of

Little Sussex Street.

2. Firewood may be landed between the line of Little Sussex Street and the By-wash or waste weir, but must be removed within twenty-four hours after having been placed there; a fine of three cents per cord will be charged for every day the wood remains on the wharf after such notice has

3. Firewood may be landed and piled around the Basin on Government land within forty feet of the water, leaving a roadway of at least fifteen feet between every four piles of Firewood, which roadway must be as near as practicable at right angles to the margin of the Canal; this wood must also be removed within twenty-four hours after the owner or person in charge has been notified to that effect, and in default, a fine of three cents per cord will be levied upon it for every day it remains thereafter.

4. Two cents per cord will be charged as wharfage or ground rent upon Firewood placed on any part of the Government Canal Reserve.

5. No Firewood may be landed without a permit having been first obtained from the Lock Master or Collector, and the Let-Pass must be given up to this officer before the wood is unloaded, under a penalty of forty dollars.

DEPARTMENT OF RAILWAYS AND CANALS, OTTAWA, 19th May, 1890. B. H. TEAKLES. Chief Clerk Canals Revenue.

LIST OF CANADIAN CANAL OFFICES AND COLLECTORS OF TOLLS.

INSPECTOR OF CANALS REVENUE, H. B. WITTON, HAMILTON.

·	•
WELLAND CANAL	Collector.
Port Colborne	
Port Dalhousie	
Dunnville Port Maitland	,
Fort Mannana	(Winter address, Stromness).
Port Robinson	Robt. Coulter.
St. Catharines	
Chippawa	T. B. HARVEY.
St. Lawrence Canals—	
Beauharnois	A D DANIS Valleyfield
Cornwall	
Montreal	
Lachine	Louis Paré.
Cardinal	
Kingston	W. Burrows.
CHAMBLY CANAL—	
Chambly	M D S MARTEL
St. John's, Q	
St. Ours Lock	
RIDEAU CANAL—	
Ottawa	
Kingston Mills Smith's Falls	
Officer S Tans	W. M. MICHEL.
Ottawa Canals—	
Grenville	
Carillon	
Ste, Anne's Lock	J. BARRETT.
CAPE BRETON CANAL—	
St. Peter's	WALLACE M. KAVANAGH.
TRENT VALLEY CANAL—	
Hastings	TIMOTHY COUGHLAN, Jr.
Peterborough.	Wm. Brownscombe.
Bobcaygeon	ELIJAH BOTTUM.
Buckhorn	W. H. HALL.
	(Address, Hall's Bridge P.O.)
Fenelon	
Burleigh	*****
MURRAY CANAL-	
,	
10.	(Address, Brighton, Ont.)
217 10	

